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(54) Title: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING SAME, AND METHODS OF USE

(57) Abstract: The present invention relates to clusters of plant genes that are regulated in response to one or more stress conditions. The present invention also relates to isolated plant stress-regulated genes, including portions thereof comprising a coding sequence or a regulatory element, and to consensus sequences comprising a plant stress-regulated regulatory element. In addition, the invention relates to a recombinant polynucleotide, which includes a plant stress-regulated gene, or functional portion thereof, operatively linked to a heterologous nucleotide sequence. The invention further relates to a transgenic plant, which contains a plant stress-regulated gene or functional portion thereof that was introduced into a progenitor cell of the plant. In addition, the invention relates to methods of using a plant stress-regulated gene to confer upon a plant a selective advantage to a stress condition. The invention also relates to a method of identifying an agent that modulates the activity of a plant stress-regulated regulatory element.

**STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS  
CONTAINING SAME, AND METHODS OF USE**

**BACKGROUND OF THE INVENTION**

**FIELD OF THE INVENTION**

The present invention relates generally to plant genes, the expression of which are regulated in response to stress, and more specifically to the gene regulatory elements involved in a stress-induced response in plants, to uses of the coding sequences and regulatory elements of such plant stress-regulated genes, and to transgenic plants  
5 genetically modified to express such a coding sequence or to express a heterologous polynucleotide from such a regulatory element.

**BACKGROUND INFORMATION**

Microarray technology is a powerful tool that can be used to identify the  
10 presence and level of expression of a large number of polynucleotides in a single assay. A microarray is formed by linking a large number of discrete polynucleotide sequences, for example, a population of polynucleotides representative of a genome of an organism, to a solid support such as a microchip, glass slide, or the like, in a defined pattern. By contacting the microarray with a nucleic acid sample obtained  
15 from a cell of interest, and detecting those polynucleotides expressed in the cell can hybridize specifically to complementary sequences on the chip, the pattern formed by the hybridizing polynucleotides allows the identification of clusters of genes that are expressed in the cell. Furthermore, where each polynucleotide linked to the solid support is known, the identity of the hybridizing sequences from the nucleic acid  
20 sample can be identified.

A strength of microarray technology is that it allows the identification of differential gene expression simply by comparing patterns of hybridization. For example, by comparing the hybridization pattern of nucleic acid molecules obtained from cells of an individual suffering from a disease with the nucleic acids obtained  
25 from the corresponding cells of a healthy individual, genes that are differentially expressed can be identified. The identification of such differentially expressed genes



provides a means to identify new genes, and can provide insight as to the etiology of a disease.

Microarray technology has been widely used to identify patterns of gene expression associated with particular stages of development or of disease conditions in animal model systems, and is being applied to the identification of specific patterns of gene expression in humans. The recent availability of information for the genomes of plants provides a means to adapt microarray technology to the study of plant gene expression.

Plants and plant products provide the primary sustenance, either directly or indirectly, for all animal life, including humans. For the majority of the world's human population and for many animals, plants and plant products provide the sole source of nutrition. As the world population increases, the best hope to prevent widespread famine is to increase the quantity and improve the quality of food crops, and to make the crops available to the regions of the world most in need of food.

Throughout history, a continual effort has been made to increase the yield and nutritious value of food crops. For centuries, plants having desirable characteristics such as greater resistance to drought conditions or increased size of fruit were crossbred and progeny plants exhibiting the desired characteristics were selected and used to produce seed or cuttings for propagation. Using such classical genetic methods, plants having, for example, greater disease resistance, increased yield, and better flavor have been obtained. The identification of plant genes involved in conferring a selective advantage on the plant to an environmental challenge would facilitate the generation and yield of plants, thereby increasing the available food supply to an increasing world population. The involvement of these genes in a single organism to responses to multiple stress conditions, however, remains unknown. Thus, a need exists to identify plant genes and polynucleotides that are involved in modulating the response of a plant to changing environmental conditions. The present invention satisfies this need and provides additional advantages.

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### **SUMMARY OF THE INVENTION**

The present invention relates to clusters of genes that are regulated in response to a stress condition in plants. Such clusters include, for example, plant polynucleotides

whose expression is altered in response to two or more different stress conditions; and plant polynucleotides the expression of which are altered in response to one stress condition, but not to others. The identification of such clusters, using microarray technology, has allowed the identification of plant stress-regulated genes in

5 *Arabidopsis thaliana* (see Tables 1 and 2); and homologs and orthologs thereof in other plant species (see Table 32). Thus, the invention provides isolated polynucleotide portions of *Arabidopsis* plant stress-regulated genes, and homologs and orthologs thereof; variants of such sequences, and polynucleotides encoding substantially similar plant stress-regulated polypeptides expressed therefrom. Such sequences include, for

10 example, sequences encoding transcription factors; enzymes, including kinases; and structural proteins, including channel proteins (see Tables 29-31). Accordingly, the present invention also relates to an isolated polynucleotide comprising all or a portion of a plant stress-regulated gene, and to polynucleotide portions thereof, including a coding region (open reading frame), which encodes all or a portion of a stress-

15 regulated polypeptide, for example, as set forth in SEQ ID NOS:1-2703; and a regulatory element involved in regulating the response of the plant to a stress condition such exposure to an abnormal level of salt, osmotic pressure, temperature or any combination thereof, for example, as set forth in SEQ ID NOS:2704-5379.

The present invention also relates to a recombinant polynucleotide, which

20 contains a nucleotide sequence of a plant stress-regulated gene or functional portion thereof operatively linked to a heterologous nucleotide sequence. In one embodiment, the recombinant polynucleotide comprises a plant stress-regulated gene regulatory element operatively linked to a heterologous nucleotide sequence, which is not regulated by the regulatory element in a naturally occurring plant. The heterologous

25 nucleotide sequence, when expressed from the regulatory element, can confer a desirable phenotype to a plant cell containing the recombinant polynucleotide. In another embodiment, the recombinant polynucleotide comprises a coding region, or portion thereof, of a plant stress-regulated gene operatively linked to a heterologous promoter. The heterologous promoter provides a means to express an encoded stress-

30 regulated polypeptide constitutively, or in a tissue-specific or phase-specific manner.

Accordingly, in one aspect, the present invention provides an isolated polynucleotide comprising a nucleotide sequence of a plant gene that hybridizes under

stringent conditions, preferably high stringency conditions, to any one of SEQ ID NOS:1-5379 (see Tables 1 and 2), including to a coding region (SEQ ID NOS:1-2703) or a regulatory region, which can alter transcription of an operatively linked nucleic acid sequence in response to an abiotic stress (SEQ ID

5 NOS:2704-5379; see Table 2), or to a complement thereof. Additional aspects provide sequences that hybridize under stringent conditions, preferably high stringency conditions, to the complements of SEQ ID NO 1-1261 (cold responsive genes; Tables 3-6), SEQ ID NOS:2227-2427 (saline responsive genes; Tables 7-10), SEQ ID NOS:2428-2585 (osmotic responsive genes; Tables 11-14), SEQ ID

10 NOS:1699-1969 (cold and osmotic responsive genes; Tables 15-17), SEQ ID NOS:1970-2226 (cold and saline responsive genes; Tables 18-20), SEQ ID NOS:2586-2703 (osmotic and saline responsive genes; Tables 21-23), and SEQ ID NOS:1262-1698(cold, osmotic and saline responsive genes; Tables 24-26), and which can comprise regulatory regions that can alter transcription in response to cold stress,

15 osmotic stress, saline stress, or combinations thereof (SEQ ID NOS:2704-5379; see Table 2). Also provided are nucleotide sequences complementary thereto, and expression cassettes, plants and seeds comprising any of the above isolated sequences.

In another aspect, the present invention provides an isolated polynucleotide comprising a plant nucleotide sequence that hybridizes under stringent conditions,

20 preferably high stringency conditions, to the complement of any one of SEQ ID NOS:1-2703 (Table 1), including to a coding region thereof (SEQ ID NOS:2704-5379), wherein expression of said coding region is altered in response to an abiotic stress. Additional aspects provide sequences that hybridize under high stringency conditions to the complements of SEQ ID NO 1-1261 (cold responsive

25 genes; Tables 3-6), SEQ ID NOS:2227-2427 (saline responsive genes; Tables 7-10), SEQ ID NOS:2428-2585 (osmotic responsive genes; Tables 11-14), SEQ ID NOS:1699-1969 (cold and osmotic responsive genes; Tables 15-17), SEQ ID NOS:1970-2226 (cold and saline responsive genes; Tables 18-20), SEQ ID NOS:2586-2703 (osmotic and saline responsive genes; Tables 21-23), and SEQ ID

30 NOS:1262-1698(cold, osmotic and saline responsive genes; Tables 24-26), and which can comprise a coding region whose transcription is altered in response to cold stress, osmotic stress, saline stress, or a combination thereof. Also provided are nucleotide

sequences complementary thereto, and expression cassettes, plants and seeds comprising any of the above sequences.

The invention further relates to a method of producing a transgenic plant, which comprises at least one plant cell that exhibits altered responsiveness to a stress condition.

5 In one embodiment, the method can be performed by introducing a polynucleotide portion of plant stress-regulated gene into a plant cell genome, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the plant cell to a stress condition.

The polynucleotide portion of the plant stress-regulated gene can encode a stress-regulated polypeptide or functional peptide portion thereof (see SEQ ID NOS:1-2703), wherein expression of the stress-regulated polypeptide or functional peptide portion thereof either increases the stress tolerance of the transgenic plant, or decreases the stress tolerance of the transgenic plant. The polynucleotide portion of the plant stress-regulated gene encoding the stress-regulated polypeptide or functional peptide portion thereof can be operatively linked to a heterologous promoter. The polynucleotide portion of the plant stress-regulated gene also can comprise a stress-regulated gene regulatory element (see SEQ ID NOS:2704-5379). The stress-regulated gene regulatory element can integrate into the plant cell genome in a site-specific manner, whereupon it can be operatively linked to a heterologous nucleotide sequence, which can be expressed in response to a stress condition specific for the regulatory element; or can be a mutant regulatory element, which is not responsive to the stress condition, whereby upon integrating into the plant cell genome, the mutant regulatory element disrupts an endogenous stress-regulated regulatory element of a plant stress-regulated gene, thereby altering the responsiveness of the plant stress-regulated gene to the stress condition.

In one aspect, the invention provides a method for producing a transgenic plant by introducing into at least one plant cell a recombinant nucleic acid construct comprising i) all or a portion of any one of SEQ ID NOS:1-5379; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to all or a portion of the complement of any one of SEQ ID NOS:1-2703; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to abiotic stress, and that hybridizes under conditions of

high stringency to the complement of any one of SEQ ID NOS:2704-5379; iv) a polynucleotide having at least 90% sequence identity with any one of SEQ ID NO:1-5379; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv),  
5 wherein the fragment comprises a nucleotide sequence that alters transcription of an operatively linked coding region in response to abiotic stress; and regenerating a plant from the at least one plant cell.

Another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct  
10 comprising i) any one of SEQ ID NOS:1-1261 or 2704-3955; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1-1261; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to cold stress that hybridizes under conditions of high stringency to the complement of  
15 any one of SEQ ID NOS:2704-3955; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1-1261 or 2704-3955; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv) wherein the fragment comprises a sequence or region that alters transcription of an operatively linked  
20 coding region in response to cold stress; and regenerating a plant from the at least one plant cell.

In another aspect, the invention provides a method for producing a transgenic plant by introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:2428-2585 or 5108-5263; ii) a  
25 polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2428-2585; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to osmotic stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:5108-5263; iv) a  
30 polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:2428-2585 or 5108-5263; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the

sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to osmotic stress; and regenerating a plant from the at least one plant cell.

Still another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:2227-2427 or 4910-5107; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2227-2427; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2227-2427; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:4910-5107; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv) wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to saline stress; and regenerating a plant from the at least one plant cell.

Yet another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:1699-1969 or 4389-4654; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1699-1969; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of cold and osmotic stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:4389-4654; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1699-1969 or 4389-4654; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of cold and osmotic stress; and regenerating a plant from the at least one plant cell.

Yet another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:1970-2226 or 4655-4909; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1970-2226; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of cold and saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:4655-4909; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1970-2226 or 4655-4909; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of cold and saline stress; and regenerating a plant from the at least one plant cell.

A further aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:2586-2703 or 5264-5379; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2586-2703; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of osmotic and saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS: 5264-5379; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:2586-2703 or 5264-5379; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of osmotic and saline stress; and regenerating a plant from the at least one plant cell.

Another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct

comprising i) any one of SEQ ID NOS:1262-1698 or 3956-4388; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1262-1698; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of cold, osmotic and saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:3956-4388; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1262-1698 or 3956-4388; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv) wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of cold, osmotic and saline stress; and regenerating a plant from the at least one plant cell. Further aspects include plants and uniform populations of plants made by the above methods as well as seeds and progeny from such plants.

In another embodiment, a transgene introduced into a plant cell according to a method of the invention can encode a polypeptide that regulates expression from an endogenous plant stress-regulated gene. Such a polypeptide can be, for example, a recombinantly produced polypeptide comprising a zinc finger domain, which is specific for the regulatory element, and an effector domain, which can be a repressor domain or an activator domain. The polynucleotide encoding the recombinant polypeptide can be operatively linked to and expressed from a constitutively active, inducible or tissue specific or phase specific regulatory element. Expression of the recombinant polypeptide from a plant stress-regulated promoter as disclosed herein can be particularly advantageous in that the polypeptide can be coordinately expressed with the endogenous plant stress-regulated genes upon exposure to a stress condition. The invention also provides transgenic plants produced by a method as disclosed, as well as to a plant cell obtained from such transgenic plant, wherein said plant cell exhibits altered responsiveness to the stress condition; a seed produced by the transgenic plant; and a cDNA or genomic DNA library prepared from the transgenic plant, or from a plant cell from said transgenic plant, wherein said plant cell exhibits altered responsiveness to the stress condition.



In one aspect, the invention provides an isolated nucleic acid molecule comprising a nucleotide sequence substantially similar to a sequence of any one of SEQ ID NOS:2704-5379, which can alter transcription of an operatively linked polynucleotide in a plant cell in response to an abiotic stress. Additional aspects of the invention provide isolated polynucleotides, including, for example, sequences substantially similar to any of SEQ ID NOS:2704-3955, which can alter transcription of an operatively linked polynucleotide in response to a cold stress; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:5108-5263, which can alter transcription of an operatively linked polynucleotide in response to an osmotic stress; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:4910-5107, which can alter transcription of an operatively linked polynucleotide in response to a saline stress; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:4389-4654, which can alter transcription of an operatively linked polynucleotide in response to a combination of cold and osmotic stresses; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:4655-4909, which can alter transcription of an operatively linked polynucleotide in response to a combination of cold and saline stresses; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:5264-5379, which can alter transcription of an operatively linked polynucleotide in response to a combination of osmotic and saline stresses; and isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:3956-4388, which can alter transcription of an operatively linked polynucleotide in response to a combination of cold, osmotic and saline stresses.

Related aspects of the invention provide an isolated nucleotide sequences that can alter transcription of an operatively linked polynucleotide in response to an abiotic stress, and that hybridize under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:2704-5379. Additional aspects provide an isolated nucleotide sequence that can alter transcription of an operatively linked polynucleotide in response to cold stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:2704-3955; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to osmotic stress, and that

hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:5108-5263; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:4910-5107; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to a combination of cold and osmotic stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:4389-4654; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to a combination of cold and saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:4655-4909; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to an combination of osmotic and saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:5264-5379; and a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to a combination of cold, osmotic and saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:3956-4388.

Further aspects provide an expression cassette comprising as operatively linked components any of the above isolated nucleic acid sequences that alter transcription, a coding region, and a termination sequence. Also provided are host cells and seeds comprising such expression cassettes, plants containing such host cells and seeds and progeny of plants containing said host cells. In related aspects, the coding region of the expression cassettes comprise sequences encoding marker proteins and sequences involved in gene silencing such as antisense sequences, double stranded RNAi sequences, a triplexing agent, and sequences comprising dominant negative mutations. In additional related aspects, the coding regions comprise sequences encoding polypeptides that alter the response of a plant to an abiotic stress.

The present invention also relates to a method of modulating the responsiveness of a plant cell to a stress condition. Such a method can be performed, for example, by introducing a polynucleotide portion of a plant stress-regulated genes

described herein into the plant cell, thereby modulating the responsiveness of the plant cell to a stress condition. Such a method can result in the responsiveness of the plant cell being increased upon exposure to the stress condition, which, in turn, can result in increased or decreased tolerance of the plant cell to a stress condition; or can  
5 result in the responsiveness of the plant cell to the stress condition being decreased, which, in turn, can result in increased or decreased tolerance of the plant cell to a stress condition. In one embodiment, the polynucleotide portion of the plant stress-regulated gene can integrate into the genome of the plant cell, thereby modulating the responsiveness of the plant cell to the stress condition. In another embodiment, the  
10 polynucleotide portion of the plant stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof, and can be operatively linked to a heterologous promoter. The polynucleotide portion of the plant stress-regulated gene also can contain a mutation, whereby upon integrating into the plant cell genome, the polynucleotide disrupts (knocks-out) an endogenous plant stress-regulated sequence,  
15 thereby modulating the responsiveness of the plant cell to the stress condition. Depending on whether the knocked-out gene encodes an adaptive or a maladaptive stress-regulated polypeptide, the responsiveness of the plant will be modulated accordingly. In still another embodiment, the polynucleotide portion of the plant stress-regulated gene can comprise a stress-regulated regulatory element, which can  
20 be operatively linked to a heterologous nucleotide sequence, the expression of which can modulate the responsiveness of the plant cell to a stress condition. Such a heterologous nucleotide sequence can encode, for example, a stress-inducible transcription factor such as DREB1A. The heterologous nucleotide sequence also can encode a polynucleotide that is specific for a plant stress-regulated gene, for example,  
25 an antisense molecule, an RNAi molecule, a ribozyme, and a triplexing agent, any of which, upon expression in the plant cell, reduces or inhibits expression of a stress-regulated polypeptide encoded by the gene, thereby modulating the responsiveness of the plant cell to a stress condition, for example, an abnormal level of cold, osmotic pressure, and salinity. Accordingly, the invention also relates to a plant cell obtained  
30 by such a method, and to a plant comprising such a plant cell.

The present invention also relates to a method of expressing a heterologous nucleotide sequence in a plant cell. Such a method can be performed, for example, by

introducing into the plant cell a plant stress-regulated regulatory element operatively linked to the heterologous nucleotide sequence, whereby, upon exposure of the plant cell to a stress condition, the heterologous nucleotide sequence is expressed in the plant cell. In a preferred embodiment, the stress regulated element is any of the sequences described herein that are capable of altering transcription of an operatively linked sequence in response to an abiotic stress, for example, SEQ ID NOS:2704-5379. The heterologous nucleotide sequence can encode a selectable marker, a diagnostic marker, or a polypeptide that confers a desirable trait upon the plant cell, for example, a polypeptide that improves the nutritional value, digestibility or ornamental value of the plant cell, or a plant comprising the plant cell.

The present invention further relates to a method of modulating the activity of a biological pathway in a plant cell, wherein the pathway involves a stress-regulated polypeptide or a non-protein regulatory molecule. Such a method can be performed by introducing a polynucleotide portion of a plant stress-regulated gene, or a polynucleotide derived therefrom, for example a ribozyme derived from a nucleotide sequence as set forth in any of SEQ ID NOS:1-2703, into the plant cell, thereby modulating the activity of the biological pathway. The method can be performed with respect to a pathway involving any of the stress-regulated polypeptides as disclosed herein or encoded by the polynucleotides disclosed herein, as well as using homologs or orthologs thereof.

The present invention also relates to a method of identifying a polynucleotide that modulates a stress response in a plant cell. In one embodiment the method comprises determining gene expression in a plant exposed to at least one stress to produce an expression profile and identifying sequences whose expression is altered at least two fold compared to plants not exposed to the stress. Such an expression profile can be obtained, for example, by contacting an array of probes representative of a plant cell genome with nucleic acid molecules expressed in a plant cell exposed to the stress; and detecting one or more nucleic acid molecules expressed at a level different from a level of expression in the absence of the stress. The method can further comprise introducing the differentially expressed nucleic acid molecule into a plant cell; and detecting a modulated response of the genetically modified plant cell to a stress, thereby identifying a polynucleotide that modulates a stress response in a

plant cell. The stress can be any stress, for example, an abiotic stress such as exposure to an abnormal level of cold, osmotic pressure, and salinity. The contacting is under conditions that allow for selective hybridization of a nucleic acid molecule with probe having sufficient complementarity, for example, under stringent hybridization conditions. Expression of the nucleic acid molecule can increase or decrease the tolerance of the plant cell to the stress, and the nucleic acid molecule can be expressed at a level that is less than or greater than the level of expression in the absence of the stress.

The present invention additionally relates to a method of identifying a stress condition to which a plant cell was exposed by comparing an expression profile from a test plant suspected of having been exposed to at least one stress condition to an expression profile obtained from a reference plant, preferably of the same species, which has been exposed to the suspected stress condition. Such a method can be performed, for example, by contacting nucleic acid molecules expressed in the test plant cell with an array of probes representative of the plant cell genome; detecting a profile of expressed nucleic acid molecules characteristic of a stress response, and comparing the expression pattern in the test plant to the expression pattern obtained from a reference plant thereby identifying the stress condition to which the plant cell was exposed. The contacting is under conditions that allow for selective hybridization of a nucleic acid molecule with probes having sufficient complementarity, for example, under stringent hybridization conditions. The profile can be characteristic of exposure to a single stress condition, for example, an abnormal level of cold, osmotic pressure, or salinity, or can be characteristic of exposure to more than one stress condition, for example, cold, increased osmotic pressure and increased salinity. In one embodiment, the nucleotide sequence of a gene whose expression is detected is selected from a polynucleotide comprising any of SEQ ID NOS:1-2703. In further embodiments, the nucleotide sequence of a gene that is expressed in response a particular stress or combination of stresses can comprise a polynucleotide expressed in response to cold stress (SEQ ID NOS:1-1261), osmotic stress (SEQ ID NOS:2428-2585), saline (salt) stress (SEQ ID NOS:2227-2427), a combination of cold and osmotic stress (SEQ ID NOS:1699-1969), a combination of saline and osmotic stress (SEQ ID NOS:1970-

2226), a combination of osmotic and saline stress (SEQ ID NOS:2586-2703), or a combination of cold, osmotic and saline stress (SEQ ID NOS:1262-1698).

The present invention further relates to a transgenic plant, which contains a nucleic acid construct comprising a polynucleotide portion of plant stress-regulated polynucleotide. In one embodiment, the transgenic plant exhibits altered responsiveness to a stress condition as compared to a corresponding reference plant not containing the construct. Such a transgenic plant can contain, for example, a construct that disrupts an endogenous stress-regulated gene in the plant, thereby reducing or inhibiting expression of the gene in response to a stress condition. Such a knock-out can increase or decrease tolerance of the plant to a stress condition. The transgene also can comprise a coding sequence of a plant stress-regulated gene, which can be operatively linked to a heterologous regulatory element such as a constitutively active regulatory element, an regulated regulatory element, a tissues specific or phase specific regulatory element, or the like. In another embodiment, the transgenic plant contains a nucleic acid construct comprising a plant stress-regulated regulatory element, which can be operatively linked to a heterologous nucleotide sequence that can encode a polypeptide. Expression of the heterologous polypeptide can confer a desirable characteristic on the plant, for example, can improve the nutritional or ornamental value of the transgenic plant. In still another embodiment, the transgenic plant contains multiple nucleic acid constructs, which can be multiple copies of the same construct, or can be two or more different constructs.

The present invention also relates to a plant stress-regulated regulatory element, which is obtained from a plant stress-regulated polynucleotide disclosed herein for example any of SEQ ID NOS:2704-5379; a homolog or ortholog thereof. The invention also provides a method of identifying an agent, for example a transcription factor, that specifically binds to or activates a plant stress-regulated regulatory element. Such a method can be performed, for example, by contacting the regulatory element with a plant cell extract, and identifying polypeptides that specifically bind to the regulatory element. Confirmation that the specifically binding polypeptide is a transcription factor can be demonstrated using, for example, the stress-regulated regulatory element operably linked to a reporter gene, and detecting expression of the reporter gene. Control constructs comprising a regulatory element, other than a plant stress-regulated regulatory element, operatively linked to a reporter molecule can be used to confirm

that the transcription factor is specific for the plant stress-regulated regulatory element. A polynucleotide encoding such a transcription factor also can be obtained.

The present invention also relates to a method of using a polynucleotide portion of a plant stress-regulated gene to confer a selective advantage on a plant cell.

5 In one embodiment, such a method is performed by introducing a plant stress-regulated regulatory element into a plant cell such as those described herein, wherein, upon exposure of the plant cell to a stress condition to which the regulatory element is responsive, a nucleotide sequence operatively linked to the regulatory element is expressed, thereby conferring a selective advantage to plant cell. The operatively

10 linked nucleotide sequence can be, for example, a transcription factor, the expression of which induces the further expression of polynucleotides involved in a stress response, thereby enhancing the response of a plant to the stress condition. In another embodiment, a coding sequence of a plant stress-regulated gene as disclosed herein is introduced into the cell, thereby providing the plant with a selective advantage in

15 response to a stress condition. In still another embodiment, the method results in the knock-out of a plant stress-regulated gene as disclosed herein in a first population of plants, thereby providing a selective advantage to a stress condition in a second population of plants.

The invention further relates to a method of identifying an agent that

20 modulates the activity of a stress-regulated regulatory element of a plant. In a particular embodiment, is provided a method for identifying an agent that alters the activity of an abiotic stress responsive regulatory element comprising contacting the agent or a composition containing an agent to be tested with at least one abiotic stress responsive regulatory element, preferably selected from the group consisting of SEQ

25 ID NOS:2704-5379 (see Table 2), and determining the effect of the agent on the ability of the regulatory sequence to regulate transcription. In further embodiments, the regulatory elements are associated with particular stresses or combination of stresses such as cold stress (SEQ ID NOS:2704-3955), osmotic stress (SEQ ID NOS:5108-5263), saline stress (SEQ ID NOS:4910-5107), a combination of cold and

30 osmotic stress (SEQ ID NOS:4389-4654), a combination of cold and saline stress (SEQ ID NOS:4655-4909), a combination of osmotic and saline stress (SEQ ID NOS:5264-5379), or a combination of cold, osmotic and saline stress (SEQ ID

NOS:3956-4388). In one embodiment, the regulatory element can be operatively linked to a heterologous polynucleotide encoding a reporter molecule, and an agent that modulates the activity of the stress-regulated regulatory element can be identified by detecting a change in expression of the reporter molecule due to contacting the regulatory element with the agent. Such a method can be performed *in vitro* in a plant cell-free system, or in a plant cell in culture or in a plant *in situ*. In another embodiment, the agent is contacted with a transgenic plant containing an introduced plant stress-regulated regulatory element, and an agent that modulates the activity of the regulatory element is identified by detecting a phenotypic change in the transgenic plant. The methods of the invention can be performed in the presence or absence of the stress condition to which the particularly regulatory element is responsive.

Another aspect provides a method for identifying an agent that alters abiotic stress responsive polynucleotide expression in a plant or plant cell comprising contacting a plant or plant cell with a test agent; subjecting the plant cell or plant cell to an abiotic stress or combination of stresses before, during or after contact with the agent to be tested; obtaining an expression profile of the plant or plant cell and comparing the expression profile of the plant or plant cell to an expression profile from a plant or plant cell not exposed to the abiotic stress or combination of stresses. In one embodiment, the expression profile comprises expression data for at least one nucleotide sequence comprising any of SEQ ID NOS:1-5379 (see Tables 1 and 2). In additional embodiments, the expression profile comprises expression data for at least one, and preferably two or more sequences associated with a particular abiotic stress or combination of stresses such as cold stress (SEQ ID NOS:1-1261 and 2704-3955), osmotic stress (SEQ ID NOS:2428-2585 and 5108-5263), saline stress (SEQ ID NOS:2227-2427 and 4910-5107), a combination of cold and osmotic stress (SEQ ID NOS:1699-1969 and 4389-4654), a combination of cold and saline stress (SEQ ID NOS:1970-2226 and 4655-4909), a combination of osmotic and saline stress (SEQ ID NOS:2586-2703 and 5264-5379), or a combination of cold, osmotic and saline stress (SEQ ID NOS:1262-1698 and 3956-4388).

Still another aspect provides nucleotide probes useful for detecting an abiotic stress response in plants, the probes comprising a nucleotide sequence of at least 15, 25, 50 or 100 nucleotides that hybridizes under stringent, preferably highly stringent,



conditions to at least one sequence comprising any of SEQ ID NOS:1-2703. Also provided are nucleotide probes comprising at least 15, 25, 50 or 100 nucleotides in length that hybridize under stringent, preferably highly stringent conditions, to at least one gene associated with a particular stress or combination of stresses, for example  
5 cold stress, (SEQ ID NOS:1-1261), osmotic stress (SEQ ID NOS:2428-2585), saline stress (SEQ ID NOS:2227-2427), a combination of cold and osmotic stress (SEQ ID NOS:1699-1969), a combination of cold and saline stress (SEQ ID NOS:1970-2226), a combination of osmotic and saline stress (SEQ ID NOS:2586-2703), or a combination of cold, osmotic, and saline stress (SEQ ID NOS:1262-1698).

10 An additional aspect provides a method for marker-assisted breeding to select plants having an altered resistance to abiotic stress comprising obtaining nucleic acid molecules from the plants to be selected; contacting the nucleic acid molecules with one or more probes that selectively hybridize under stringent, preferably highly stringent, conditions to a nucleic acid sequence selected from the group consisting of  
15 SEQ ID NOS:1-2703; detecting the hybridization of the one or more probes to the nucleic acid sequences wherein the presence of the hybridization indicates the presence of a gene associated with altered resistance to abiotic stress; and selecting plants on the basis of the presence or absence of such hybridization. Marker-assisted selection can also be accomplished using one or more probes which selectively  
20 hybridize under stringent, preferably highly stringent conditions, to a nucleotide sequence comprising a polynucleotide expressed in response associated with a particular stress, for example, a nucleotide sequence comprising any of SEQ ID NOS:1-1261 (cold stress), SEQ ID NOS:2428-2585 (osmotic stress), SEQ ID NOS:2227-2427 (saline stress), SEQ ID NOS:1699-1969 (cold and osmotic stress),  
25 SEQ ID NOS:1970-2226 (cold and saline stress), SEQ ID NOS:2586-2703 (osmotic and saline stress), or SEQ ID NOS:1262-1698 (cold, osmotic and saline stress). In each case marker-assisted selection can be accomplished using a probe or probes to a single sequence or multiple sequences. If multiple sequences are used they can be used simultaneously or sequentially.

30 A further aspect provides a method for monitoring a population of plants comprising providing at least one sentinel plant containing a recombinant polynucleotide comprising a stress responsive regulatory sequence selected from the

group consisting of SEQ ID NOS:2704-5379 which is operatively linked to a nucleotide sequence encoding a detectable marker, for example a fluorescent protein. Additional aspects provide the use of various regulatory sequences including those associated with cold stress (SEQ ID NOS:2704-3955), osmotic stress (SEQ ID NOS:5108-5263), saline stress (SEQ ID NOS:4910-5107), cold and osmotic stress (SEQ ID NOS:4389-4654), cold and saline stress (SEQ ID NOS:4655-4909), osmotic and saline stress (SEQ ID NOS:5264-5379), and cold, osmotic and saline stress (SEQ ID NOS:3956-4388), or fragments thereof wherein such fragments can alter transcription of an operatively linked nucleotide sequence in response to an abiotic stress.

A further aspect provides a computer readable medium having stored thereon computer executable instructions for performing a method comprising receiving data on gene expression in a test plant of at least one nucleic acid molecule having at least 70%, preferably at least 80%, more preferably at least 90%, and most preferably at least 95% nucleotide sequence identity to one or more polynucleotide sequences as set forth in any of SEQ ID NOS:1-2703; and comparing expression data from the test plant to expression data for the same polynucleotide sequence or sequences in a plant that has been exposed to at least one abiotic stress.

Yet a further aspect provides a computer readable medium having stored thereon a data structure comprising, sequence data for at least one, and preferably a plurality of nucleic acid molecules having at least 70%, preferably at least 80%, more preferably at least 90%, and most preferably at least 95% nucleotide sequence identity to a polynucleotide comprising any of SEQ ID NOS:1-2703, or the complement thereof; and a module receiving the nucleic acid molecule sequence data which compares the nucleic acid molecule sequence data to at least one other nucleic acid sequence.

#### DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to clusters of genes that are induced in response to one or a combination of abiotic stress conditions. Abiotic stress conditions, such as a shortage or excess of solar energy, water and nutrients, and salinity, high and low temperature, or pollution (e.g., heavy metals), can have a major impact on plant growth and can significantly reduce the yield, for example, of cultivars. Under

conditions of abiotic stress, the growth of plant cells is inhibited by arresting the cell cycle in late G1, before DNA synthesis, or at the G2/M boundary (see Dudits, Plant Cell Division, Portland Press Research, Monograph; Francis, Dudits, and Inze, eds., 1997; chap. 2, page 21; Bergounioux, Protoplasma 142:127-136, 1988). The

- 5 identification of stress-regulated gene clusters, using microarray technology, provides a means to identify plant stress-regulated genes.

As used herein, the term "cluster," when used in reference to stress-regulated genes, refers to nucleotide sequences of genes that have been selected by drawing Venn diagrams, and selecting those genes that are regulated only by a selected stress condition.

- 10 In general, a cluster of stress-regulated genes includes at least 5, 10, 15, or 20 genes, including polynucleotide portions thereof, each of which is responsive to the same selected stress condition or conditions. The selected stress condition can be a single stress condition, for example, cold, osmotic stress or salinity stress (see Tables 3-14), or can be a selected combination of stress conditions, for example, cold, osmotic stress and
- 15 salinity stress (see Tables 15-26). In addition, a cluster can be selected based on specifying that all of the genes are coordinately regulated, for example, they all start at a low level and are induced to a higher level. However, a cluster of saline stress-regulated genes, for example, that was selected for coordinate regulation from low to high, also can be decreased in response to cold or mannitol. By varying the parameters used for
- 20 selecting a cluster of gene nucleotide sequences, those genes that are expressed in a specific manner following a stress can be identified.

- As used herein in reference to a polynucleotide or polynucleotide portion of a gene or nucleic acid molecule, the term "isolated" means a polynucleotide, polynucleotide portion of a gene, or nucleic acid molecule that is free of one or both
- 25 of the nucleotide sequences that normally flank the polynucleotide in a genome of a naturally-occurring organism from which the polynucleotide is derived. The term includes, for example, a polynucleotide or fragment thereof that is incorporated into a vector or expression cassette; into an autonomously replicating plasmid or virus; into the genomic DNA of a prokaryote or eukaryote; or that exists as a separate molecule
- 30 independent of other polynucleotides. It also includes a recombinant polynucleotide that is part of a hybrid polynucleotide, for example, one encoding a polypeptide sequence.

The terms "polynucleotide," "oligonucleotide," and "nucleic acid sequence" are used interchangeably herein to refer to a polymeric (2 or more monomers) form of nucleotides of any length, either ribonucleotides or deoxyribonucleotides. Although nucleotides are usually joined by phosphodiester linkages, the term also includes  
5 polymers containing neutral amide backbone linkages composed of aminoethyl glycine units. The terms are used only to refer to the primary structure of the molecule. Thus, the term includes double stranded and single stranded DNA molecules, including a sense strand or an antisense strand, and RNA molecules as well as genomic DNA, cDNA, mRNA and the like. It will be recognized that such  
10 polynucleotides can be modified, for example, by including a label such as a radioactive, fluorescent or other tag, by methylation, by the inclusion of a cap structure, by containing a substitution of one or more of the naturally occurring nucleotides with a nucleotide analog, by containing an internucleotide modification such as having uncharged linkages (e.g., methyl phosphonates, phosphotriesters,  
15 phosphoramidates, carbamates, or the like), by containing a pendant moiety such as a protein (e.g., a nuclease, toxin, antibody, signal peptide, poly-L-lysine, or the like), by containing an intercalator such as acridine or psoralen, by containing a chelator, which can be a metal such as boron, an oxidative metal, or a radioactive metal, by containing an alkylator, or by having a modified linkage (e.g., an alpha anomeric  
20 nucleic acid).

The term "recombinant nucleic acid molecule" refers to a polynucleotide produced by human intervention. A recombinant nucleic acid molecule can contain two or more nucleotide sequences that are linked in a manner such that the product is not found in a cell in nature. In particular, the two or more nucleotide sequences can  
25 be operatively linked and, for example, can encode a fusion polypeptide, or can comprise a nucleotide sequence and a regulatory element. A recombinant nucleic acid molecule also can be based on, but different, from a naturally occurring polynucleotide, for example, a polynucleotide having one or more nucleotide changes such that a first codon, which normally is found in the polynucleotide, is replaced  
30 with a degenerate codon that encodes the same or a conservative amino acid, or such that a sequence of interest is introduced into the polynucleotide, for example, a

restriction endonuclease recognition site or a splice site, a promoter, a DNA replication initiation site, or the like.

As used herein, the term "abiotic stress" or "abiotic stress condition" refers to the exposure of a plant, plant cell, or the like, to a non-living ("abiotic") physical or chemical agent or condition that has an adverse effect on metabolism, growth, development, propagation and/or survival of the plant (collectively "growth"). An abiotic stress can be imposed on a plant due, for example, to an environmental factor such as water (e.g., flooding, drought, dehydration), anaerobic conditions (e.g., a low level of oxygen), abnormal osmotic conditions, salinity or temperature (e.g., hot/heat, cold, freezing, frost), a deficiency of nutrients or exposure to pollutants, or by a hormone, second messenger or other molecule. Anaerobic stress, for example, is due to a reduction in oxygen levels (hypoxia or anoxia) sufficient to produce a stress response. A flooding stress can be due to prolonged or transient immersion of a plant, plant part, tissue or isolated cell in a liquid medium such as occurs during monsoon, wet season, flash flooding or excessive irrigation of plants, or the like. A cold stress or heat stress can occur due to a decrease or increase, respectively, in the temperature from the optimum range of growth temperatures for a particular plant species. Such optimum growth temperature ranges are readily determined or known to those skilled in the art. Dehydration stress can be induced by the loss of water, reduced turgor, or reduced water content of a cell, tissue, organ or whole plant. Drought stress can be induced by or associated with the deprivation of water or reduced supply of water to a cell, tissue, organ or organism. Saline stress (salt stress) can be associated with or induced by a perturbation in the osmotic potential of the intracellular or extracellular environment of a cell. Osmotic stress also can be associated with or induced by a change, for example, in the concentration of molecules in the intracellular or extracellular environment of a plant cell, particularly where the molecules cannot be partitioned across the plant cell membrane.

As disclosed herein, clusters of plant stress-regulated genes (Example 1; see, also, Tables 1-31) and homologs and orthologs thereof (Table 32) have been identified. Remarkably, several of the stress-regulated genes previously were known to encode polypeptides having defined cellular functions, including roles as transcription factors, enzymes such as kinases, and structural proteins such as channel proteins (see

Tables 29-31). The identification of *Arabidopsis* stress-regulated genes provides a means to identify homologous and orthologous genes and gene sequences in other plant species using well known procedures and algorithms based on identity (or homology) to the disclosed sequences. Thus, the invention provides polynucleotide sequences comprising plant stress-regulated genes that are homologs or orthologs, variants, or otherwise substantially similar to the polynucleotides disclosed herein, and having an E value  $\leq 1 \times 10^{-8}$ , which can be identified, for example, by a BLASTN search using the *Arabidopsis* polynucleotides of Tables 1 and 2 (SEQ ID NOS:1-5379) as query sequences (see Table 32).

A polynucleotide sequence of a stress-regulated gene as disclosed herein can be particularly useful for performing the methods of the invention on a variety of plants, including but not limited to, corn (*Zea mays*), *Brassica* sp. (e.g., *B. napus*, *B. rapa*, *B. juncea*), particularly those *Brassica* species useful as sources of seed oil, alfalfa (*Medicago sativa*), rice (*Oryza sativa*), rye (*Secale cereale*), sorghum (*Sorghum bicolor*, *Sorghum vulgare*), millet (e.g., pearl millet (*Pennisetum glaucum*), proso millet (*Panicum miliaceum*), foxtail millet (*Setaria italica*), finger millet (*Eleusine coracana*)), sunflower (*Helianthus annuus*), safflower (*Carthamus tinctorius*), wheat (*Triticum aestivum*), soybean (*Glycine max*), tobacco (*Nicotiana tabacum*), potato (*Solanum tuberosum*), peanuts (*Arachis hypogaea*), cotton (*Gossypium barbadense*, *Gossypium hirsutum*), sweet potato (*Ipomoea batatas*), cassava (*Manihot esculenta*), coffee (*Cofea* spp.), coconut (*Cocos nucifera*), pineapple (*Ananas comosus*), citrus trees (*Citrus* spp.), cocoa (*Theobroma cacao*), tea (*Camellia sinensis*), banana (*Musa* spp.), avocado (*Persea utilane*), fig (*Ficus casica*), guava (*Psidium guajava*), mango (*Mangifera indica*), olive (*Olea europaea*), papaya (*Carica papaya*), cashew (*Anacardium occidentale*), macadamia (*Macadamia integrifolia*), almond (*Prunus amygdalus*), sugar beets (*Beta vulgaris*), sugarcane (*Saccharum* spp.), oats, duckweed (*Lemna*), barley, tomatoes (*Lycopersicon esculentum*), lettuce (e.g., *Lactuca sativa*), green beans (*Phaseolus vulgaris*), lima beans (*Phaseolus limensis*), peas (*Lathyrus* spp.), and members of the genus *Cucumis* such as cucumber (*C. sativus*), cantaloupe (*C. cantalupensis*), and musk melon (*C. melo*). Ornamentals such as azalea (*Rhododendron* spp.), hydrangea (*Macrophylla hydrangea*), hibiscus (*Hibiscus rosasanensis*), roses (*Rosa* spp.), tulips (*Tulipa* spp.),

daffodils (*Narcissus* spp.), petunias (*Petunia hybrida*), carnation (*Dianthus caryophyllus*), poinsettia (*Euphorbia pulcherrima*), and chrysanthemum are also included. Additional ornamentals within the scope of the invention include impatiens, Begonia, Pelargonium, Viola, Cyclamen, Verbena, Vinca, Tagetes, Primula, Saint  
 5 Paulia, Agertum, Amaranthus, Antihirrhinum, Aquilegia, Cineraria, Clover, Cosmo, Cowpea, Dahlia, Datura, Delphinium, Gerbera, Gladiolus, Gloxinia, Hippeastrum, Mesembryanthemum, Salpiglossos, and Zinnia. Conifers that may be employed in practicing the present invention include, for example, pines such as loblolly pine (*Pinus taeda*), slash pine (*Pinus elliotii*), ponderosa pine (*Pinus ponderosa*),  
 10 lodgepole pine (*Pinus contorta*), and Monterey pine (*Pinus radiata*), Douglas-fir (*Pseudotsuga menziesii*); Western hemlock (*Tsuga utilane*); Sitka spruce (*Picea glauca*); redwood (*Sequoia sempervirens*); true firs such as silver fir (*Abies amabilis*) and balsam fir (*Abies balsamea*); and cedars such as Western red cedar (*Thuja plicata*) and Alaska yellow-cedar (*Chamaecyparis nootkatensis*).

15 Leguminous plants which may be used in the practice of the present invention include beans and peas. Beans include guar, locust bean, fenugreek, soybean, garden beans, cowpea, mung bean, lima bean, fava bean, lentils, chickpea, etc. Legumes include, but are not limited to, *Arachis*, e.g., peanuts, *Vicia*, e.g., crown vetch, hairy vetch, adzuki bean, mung bean, and chickpea, *Lupinus*, e.g., lupine, trifolium,  
 20 *Phaseolus*, e.g., common bean and lima bean, *Pisum*, e.g., field bean, *Melilotus*, e.g., clover, *Medicago*, e.g., alfalfa, Lotus, e.g., trefoil, lens, e.g., lentil, and false indigo. Preferred forage and turf grass for use in the methods of the invention include alfalfa, orchard grass, tall fescue, perennial ryegrass, creeping bent grass, and redtop.

Other plants within the scope of the invention include *Acacia*, aneth,  
 25 artichoke, arugula, blackberry, canola, cilantro, clementines, escarole, eucalyptus, fennel, grapefruit, honey dew, jicama, kiwifruit, lemon, lime, mushroom, nut, okra, orange, parsley, persimmon, plantain, pomegranate, poplar, radiata pine, radicchio, Southern pine, sweetgum, tangerine, triticale, vine, yams, apple, pear, quince, cherry, apricot, melon, hemp, buckwheat, grape, raspberry, chenopodium, blueberry,  
 30 nectarine, peach, plum, strawberry, watermelon, eggplant, pepper, cauliflower, Brassica, e.g., broccoli, cabbage, ultilan sprouts, onion, carrot, leek, beet, broad bean,

celery, radish, pumpkin, endive, gourd, garlic, snapbean, spinach, squash, turnip, utilane, chicory, groundnut and zucchini.

As used herein, the term "substantially similar", when used herein with respect to a nucleotide sequence, means a nucleotide sequence corresponding to a reference  
5 nucleotide sequence, wherein the corresponding sequence encodes a polypeptide or comprises a regulatory element having substantially the same structure and function as the polypeptide encoded by the reference nucleotide sequence, for example, where only changes in amino acids not affecting the polypeptide function occur. For purposes of the present invention, a reference (or query) sequence is a polynucleotide  
10 sequence as set forth in any of SEQ ID NOS:1-2703 or a polypeptide encoded thereby. Desirably, a substantially similar nucleotide sequence encodes the polypeptide encoded by the reference nucleotide sequence. The percentage of identity between the substantially similar nucleotide sequence and the reference nucleotide sequence desirably is at least 60%, more desirably at least 75%, preferably at least  
15 90%, more preferably at least 95%, still more preferably at least 99% and including 100%. A nucleotide sequence is "substantially similar" to reference nucleotide sequence hybridizes to the reference nucleotide sequence in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO<sub>4</sub>, 1 mM EDTA at 50°C with washing in 2X SSC, 0.1% SDS at 50°C, more desirably in 7% sodium dodecyl sulfate (SDS),  
20 0.5 M NaPO<sub>4</sub>, 1 mM EDTA at 50°C with washing in 1X SSC, 0.1% SDS at 50°C (stringent conditions), more desirably still in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO<sub>4</sub>, 1 mM EDTA at 50°C with washing in 0.5X SSC, 0.1% SDS at 50°C (high stringency), preferably in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO<sub>4</sub>, 1 mM EDTA at 50°C with washing in 0.1X SSC, 0.1% SDS at 50°C (very high  
25 stringency), more preferably in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO<sub>4</sub>, 1 mM EDTA at 50°C with washing in 0.1X SSC, 0.1% SDS at 65°C (extremely high stringency).

In addition, the term "substantially similar," when used in reference to a polypeptide sequence, means that an amino acid sequence relative to a reference (query)  
30 sequence shares at least about 65% amino acid sequence identity, particularly at least about 75% amino acid sequence identity, and preferably at least about 85%, more



preferably at least about 90% , and most preferably at least about 95% or greater amino acid sequence identity. Generally, sequences having an  $E \leq 10^{-8}$  are considered to be substantially similar to a query sequence. Such sequence identity can take into account conservative amino acid changes that do not substantially affect the function of a polypeptide. As such, homologs or orthologs of the *Arabidopsis* stress-regulated nucleotide sequences disclosed herein, variants thereof, and polypeptides substantially similar to the polynucleotide sequence of *Arabidopsis* stress-regulated genes set forth in SEQ ID NOS:1-5379 are encompassed within the present invention and, therefore, useful for practicing the methods of the invention (see, for example, Table 32).

Homology or identity is often measured using sequence analysis software such as the Sequence Analysis Software Package of the Genetics Computer Group (University of Wisconsin Biotechnology Center, 1710 University Avenue, Madison, WI 53705). Such software matches similar sequences by assigning degrees of homology to various deletions, substitutions and other modifications. The terms "homology" and "identity," when used herein in the context of two or more nucleic acids or polypeptide sequences, refer to two or more sequences or subsequences that are the same or have a specified percentage of amino acid residues or of nucleotides that are the same when compared and aligned for maximum correspondence over a comparison window or designated region as measured using any number of sequence comparison algorithms or by manual alignment and visual inspection.

For sequence comparison, typically one sequence acts as a reference sequence, to which test sequences are compared. When using a sequence comparison algorithm, test and reference sequences are entered into a computer, subsequence coordinates are designated, if necessary, and sequence algorithm program parameters are designated. Default program parameters can be used, or alternative parameters can be designated. The sequence comparison algorithm then calculates the percent sequence identities for the test sequences relative to the reference sequence, based on the program parameters.

The term "comparison window" is used broadly herein to include reference to a segment of any one of the number of contiguous positions, for example, about 20 to 600 positions, for example, amino acid or nucleotide position, usually about 50 to about 200 positions, more usually about 100 to about 150 positions, in which a sequence may be compared to a reference sequence of the same number of contiguous positions

after the two sequences are optimally aligned. Methods of alignment of sequence for comparison are well-known in the art. Optimal alignment of sequences for comparison can be conducted, for example, by the local homology algorithm of Smith and Waterman (Adv. Appl. Math. 2:482, 1981), by the homology alignment algorithm of Needleman and Wunsch (J. Mol. Biol. 48:443, 1970), by the search for similarity method of Person and Lipman (Proc. Natl. Acad. Sci., USA 85:2444, 1988), each of which is incorporated herein by reference; by computerized implementations of these algorithms (GAP, BESTFIT, FASTA, and TFASTA in the Wisconsin Genetics Software Package, Genetics Computer Group, 575 Science Dr., Madison, WI); or by manual alignment and visual inspection. Other algorithms for determining homology or identity include, for example, in addition to a BLAST program (Basic Local Alignment Search Tool at the National Center for Biological Information), ALIGN, AMAS (Analysis of Multiply Aligned Sequences), AMPS (Protein Multiple Sequence Alignment), ASSET (Aligned Segment Statistical Evaluation Tool), BANDS, BESTSCOR, BIOSCAN (Biological Sequence Comparative Analysis Node), BLIMPS (BLOCKS IMPROVED Searcher), FASTA, Intervals & Points, BMB, CLUSTAL V, CLUSTAL W, CONSENSUS, LCONSENSUS, WCONSENSUS, Smith-Waterman algorithm, DARWIN, Las Vegas algorithm, FNAT (Forced Nucleotide Alignment Tool), Framealign, Framesearch, DYNAMIC, FILTER, FSAP (Fristensky Sequence Analysis Package), GAP (Global Alignment Program), GENAL, GIBBS, GenQuest, ISSC (Sensitive Sequence Comparison), LALIGN (Local Sequence Alignment), LCP (Local Content Program), MACAW (Multiple Alignment Construction & Analysis Workbench), MAP (Multiple Alignment Program), MBLKP, MBLKN, PIMA (Pattern-Induced Multi-sequence Alignment), SAGA (Sequence Alignment by Genetic Algorithm) and WHAT-IF. Such alignment programs can also be used to screen genome databases to identify polynucleotide sequences having substantially identical sequences.

A number of genome databases are available for comparison. Several databases containing genomic information annotated with some functional information are maintained by different organizations, and are accessible via the internet, for example, at world wide web addresses (url's) "[www.tigr.org/tdb](http://www.tigr.org/tdb)"; "[genetics.wisc.edu](http://genetics.wisc.edu)";

"genome-www.stanford.edu/~ball"; "hiv-web.lanl.gov"; "ncbi.nlm.nih.gov"; "ebi.ac.uk"; "Pasteur.fr/other/biology"; and "genome.wi.mit.edu".

In particular, the BLAST and BLAST 2.0 algorithms using default parameters are particularly useful for identifying polynucleotide and polypeptides encompassed within the present invention (Altschul et al. (Nucleic Acids Res. 25:3389-3402, 1977; J. Mol. Biol. 215:403-410, 1990, each of which is incorporated herein by reference). Software for performing BLAST analyses is publicly available through the National Center for Biotechnology Information (<http://www.ncbi.nlm.nih.gov>). This algorithm involves first identifying high scoring sequence pairs (HSPs) by identifying short words of length W in the query sequence, which either match or satisfy some positive-valued threshold score T when aligned with a word of the same length in a database sequence. T is referred to as the neighborhood word score threshold (Altschul et al., *supra*, 1977, 1990). These initial neighborhood word hits act as seeds for initiating searches to find longer HSPs containing them. The word hits are extended in both directions along each sequence for as far as the cumulative alignment score can be increased. Cumulative scores are calculated using, for nucleotide sequences, the parameters M (reward score for a pair of matching residues; always >0). For amino acid sequences, a scoring matrix is used to calculate the cumulative score. Extension of the word hits in each direction are halted when: the cumulative alignment score falls off by the quantity X from its maximum achieved value; the cumulative score goes to zero or below, due to the accumulation of one or more negative-scoring residue alignments; or the end of either sequence is reached. The BLAST algorithm parameters W, T, and X determine the sensitivity and speed of the alignment. The BLASTN program (for nucleotide sequences) uses as defaults a wordlength (W) of 11, an expectation (E) of 10, M=5, N=4 and a comparison of both strands. For amino acid sequences, the BLASTP program uses as defaults a wordlength of 3, and expectations (E) of 10, and the BLOSUM62 scoring matrix (see Henikoff and Henikoff, Proc. Natl. Acad. Sci., USA 89:10915, 1989) alignments (B) of 50, expectation (E) of 10, M=5, N=4, and a comparison of both strands.

The BLAST algorithm also performs a statistical analysis of the similarity between two sequences (see, for example, Karlin and Altschul, Proc. Natl. Acad. Sci., USA 90:5873, 1993, which is incorporated herein by reference). One measure of

similarity provided by BLAST algorithm is the smallest sum probability ( $P(N)$ ), which provides an indication of the probability by which a match between two nucleotide or amino acid sequences would occur by chance. For example, a nucleic acid is considered similar to a references sequence if the smallest sum probability in a comparison of the test nucleic acid to the reference nucleic acid is less than about 0.2, more preferably less than about 0.01, and most preferably less than about 0.001. Significantly, upon identifying polynucleotides that are substantially similar to those of SEQ ID NOS:1-5379, the identified polynucleotides can be used as query sequences in a BLAST search to identify polynucleotides and polypeptides substantially similar thereto.

It should be noted that the nucleotide sequences set forth as SEQ ID NOS:1-2703 comprise coding sequences, whereas the nucleotide sequences set forth as SEQ ID NOS:2704-5379 comprise regulatory sequences. In addition, the coding sequences and regulatory sequences are related in that, for example, SEQ ID NO:1 is the coding sequence of a plant cold regulated gene having a 5' upstream (regulatory) sequence set forth as SEQ ID NO:2704 (see Table 2). Similarly, SEQ ID NO:2705 comprises a regulatory region of SEQ ID NO:2, SEQ ID NO:2706 comprises a regulatory region of SEQ ID NO:3, and so forth as shown in Table 2. As such, reference herein, for example, to a "polynucleotide comprising SEQ ID NO:1" can, unless indicated otherwise, include at least SEQ ID NO:2704. In some cases, the entire coding region of a plant stress regulated gene or the 5' upstream sequence has not yet been determined (see, for example, SEQ ID NO:43 in Table 3, where "none" indicates that 5' upstream regulatory sequences have not yet been determined). However, the determination of a complete coding sequence where only a portion is known or of regulatory sequences where a portion of the coding sequence is known can be made using methods as disclosed herein or otherwise known in the art.

In one embodiment, protein and nucleic acid sequence homologies are evaluated using the Basic Local Alignment Search Tool ("BLAST"). In particular, five specific BLAST programs are used to perform the following task:

- (1) BLASTP and BLAST3 compare an amino acid query sequence against a protein sequence database;
- (2) BLASTN compares a nucleotide query sequence against a nucleotide sequence database;

(3) BLASTX compares the six-frame conceptual translation products of a query nucleotide sequence (both strands) against a protein sequence database;

(4) TBLASTN compares a query protein sequence against a nucleotide sequence database translated in all six reading frames (both strands); and

5 (5) TBLASTX compares the six-frame translations of a nucleotide query sequence against the six-frame translations of a nucleotide sequence database.

The BLAST programs identify homologous sequences by identifying similar segments, which are referred to herein as "high-scoring segment pairs," between a query amino or nucleic acid sequence and a test sequence which is preferably  
10 obtained from a protein or nucleic acid sequence database. High-scoring segment pairs are preferably identified (*i.e.*, aligned) by means of a scoring matrix, many of which are known in the art. Preferably, the scoring matrix used is the BLOSUM62 matrix (Gonnet et al., Science 256:1443-1445, 1992; Henikoff and Henikoff, Proteins 17:49-61, 1993, each of which is incorporated herein by reference). Less preferably,  
15 the PAM or PAM250 matrices may also be used (Schwartz and Dayhoff, eds., "Matrices for Detecting Distance Relationships: Atlas of Protein Sequence and Structure" (Washington, National Biomedical Research Foundation 1978)). BLAST programs are accessible through the U.S. National Library of Medicine, for example, on the world wide web at address (url) "ncbi.nlm.nih.gov".

20 The parameters used with the above algorithms may be adapted depending on the sequence length and degree of homology studied. In some embodiments, the parameters may be the default parameters used by the algorithms in the absence of instructions from the user.

The term "substantially similar" also is used in reference to a comparison of  
25 expression profiles of nucleotide sequences, wherein a determination that an expression profile characteristic of a stress response is substantially similar to the profile of nucleic acid molecules expressed in a plant cell being examined ("test plant") is indicative of exposure of the test plant cell to one or a combination of abiotic stress conditions. When used in reference to such a comparison of expression profiles, the  
30 term "substantially similar" means that that the individual nucleotide sequences in the test plant cell profile are altered in the same manner as the corresponding nucleotide sequences in the expression profile characteristic of the stress response.

By way of example, where exposure to saline results in an increased expression of nucleotide sequences A, B and C, and a decreased expression of nucleotide sequences D and E, as indicated by the expression profile characteristic of a saline stress response, a determination that corresponding nucleotide sequences A, B and C in the test plant cell  
5 are increased and that nucleotides sequences D and E are decreased is indicative of exposure of the test plant cell to a saline stress condition. It should be recognized that, where, for example, only nucleotide sequences A, B, D and E are examined in the test plant cell, an increase in A and B and a decrease in D and E expression of the test plant cells is considered to be substantially similar to the expression profile characteristic of a  
10 saline stress condition and, therefore, is indicative of exposure of the plant cell to a saline stress condition. Similarly, where the levels of expression of the nucleotide sequences examined in a test plant are altered in the same manner, i.e., are increased or are decreased, as that observed in an expression profile characteristic of a particular stress response, the absolute levels of expression may vary, for example, two-fold, five-fold,  
15 ten-fold, or the like. Nevertheless, the expression profile of the test plant cell is considered to be substantially similar to the expression profile characteristic of the particular stress response and, therefore, indicative of exposure of the plant cell to the stress condition.

As disclosed herein, clusters of stress-regulated genes (and their products), some  
20 of which also have been described as having cellular functions such as enzymatic activity or roles as transcription factors, are involved in the response of plant cells to various abiotic stresses (see Tables 29-31; see, also, Tables 1 and 32). As such, the polynucleotide sequences comprising the genes in a cluster likely share common stress-regulated regulatory elements, including, for example, cold-regulated regulatory  
25 elements (SEQ ID NOS:2704-3955), salinity-regulated regulatory elements (SEQ ID NOS:4910-5107, and osmotic pressure-regulated regulatory elements (SEQ ID NO:5108-5263), as well as regulatory elements that are responsive to a combination of stress conditions, but not to any of the individual stress conditions, alone (SEQ ID  
30 NOS:3956-4909 and 5263-5379). The identification of such clusters of genes thus provides a means to identify the stress-regulated regulatory elements that control the level of expression of these genes.

As used herein, the term "plant stress-regulated gene" means a polynucleotide sequence of a plant, the transcription of which is altered in response to exposure to a stress condition, and the regulatory elements linked to such a polynucleotide sequence and involved in the stress response, which can be induction or repression. In general, plant stress gene regulatory elements are contained within a sequence including approximately two kilobases upstream (5') of the transcription or translation start site and two kilobases downstream (3') of the transcription or translation termination site. In the absence of an abiotic stress condition, the stress-regulated gene can normally be unexpressed in the cells, can be expressed at a basal level, which is induced to a higher level in response to the stress condition, or can be expressed at a level that is reduced (decreased) in response to the stress condition. The coding region of a plant stress-regulated gene encodes a stress-regulated polypeptide, and also can be the basis for expression of a functional RNA molecule such as an antisense molecule or ribozyme. A stress-regulated polypeptide can have an adaptive effect on a plant, thereby allowing the plant to better tolerate stress conditions; or can have a maladaptive effect, thereby decreasing the ability of the plant to tolerate the stress conditions.

The present invention provides an isolated plant stress-regulated regulatory element, which regulates expression of an operatively linked nucleotide sequence in a plant in response a stress condition. As disclosed herein, a plant stress-regulated regulatory element can be isolated from a polynucleotide sequence of a plant stress-regulated gene comprising a nucleotide sequence as set forth in SEQ ID NOS:1-2703, for example any of SEQ ID NOS:2704-5379 (see Table 2). It is recognized that certain of the polynucleotides set forth as SEQ ID NOS:1-5379 previously have been described as being involved in a stress-regulated response in plants, including SEQ ID NOS:156, 229, 233, 558, 573, 606, 625, 635, 787, 813, 1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918, and 1928 and, therefore, are not encompassed, in whole or in part, within the compositions of the invention, and are encompassed within only certain particular methods of the invention, for example, methods of making a transgenic plant that is resistant to two or more stress conditions, since, even where such a gene was known to be expressed in response to a single stress condition such as cold or saline (e.g., SEQ ID NO:1263), it was not known

prior to the present disclosure that any of these genes was responsive to a combination of stress conditions (for example, a combination of cold and osmotic stress for SEQ ID NOS:1726, 1866, 1918, and 1928; or a combination of cold, osmotic and saline stress for SEQ ID NOS:1263,1386, 1391, 1405, 1445, 1484, 1589, 1609, and 1634).

5           Methods for identifying and isolating the stress-regulated regulatory element from the disclosed polynucleotides, or genomic DNA clones corresponding thereto, are well known in the art. For example, methods of making deletion constructs or linker-scanner constructs can be used to identify nucleotide sequences that are responsive to a stress condition. Generally, such constructs include a reporter gene  
10           operatively linked to the sequence to be examined for regulatory activity. By performing such assays, a plant stress-regulated regulatory element can be defined within a sequence of about 500 nucleotides or fewer, generally at least about 200 nucleotides or fewer, particularly about 50 to 100 nucleotides, and more particularly at least about 20 nucleotides or fewer. Preferably the minimal (core)  
15           sequence required for regulating a stress response of a plant is identified.

          The nucleotide sequences of the genes of a cluster also can be examined using a homology search engine such as described herein to identify sequences of conserved identity, particularly in the nucleotide sequence upstream of the transcription start site. Since all of the genes in a cluster as disclosed are induced in response to a  
20           particular stress condition or a particular combination of stress conditions, some or all of the nucleotide sequences can share conserved stress-regulated regulatory elements. By performing such a homology search, putative stress-regulated regulatory elements can be identified. The ability of such identified sequences to function as a plant stress-regulated regulatory element can be confirmed, for example, by operatively  
25           linking the sequence to a reporter gene and assaying the construct for responsiveness to a stress condition.

          As used herein, the term "regulatory element" means a nucleotide sequence that, when operatively linked to a coding region of a gene, effects transcription of the coding region such that a ribonucleic acid (RNA) molecule is transcribed from the  
30           coding region. A regulatory element generally can increase or decrease the amount of transcription of a nucleotide sequence, for example, a coding sequence, operatively linked to the element with respect to the level at which the nucleotide sequence would



be transcribed absent the regulatory element. Regulatory elements are well known in the art and include promoters, enhancers, silencers, inactivated silencer intron sequences, 3'-untranslated or 5'-untranslated sequences of transcribed sequence, for example, a poly-A signal sequence, or other protein or RNA stabilizing elements, or  
5 other gene expression control elements known to regulate gene expression or the amount of expression of a gene product. A regulatory element can be isolated from a naturally occurring genomic DNA sequence or can be synthetic, for example, a synthetic promoter.

Regulatory elements can be constitutively expressed regulatory element,  
10 which maintain gene expression at a relative level of activity (basal level), or can be regulated regulatory elements. Constitutively expressed regulatory elements can be expressed in any cell type, or can be tissue specific, which are expressed only in particular cell types, phase specific, which are expressed only during particular developmental or growth stages of a plant cell, or the like. A regulatory element such  
15 as a tissue specific or phase specific regulatory element or an inducible regulatory element useful in constructing a recombinant polynucleotide or in practicing a method of the invention can be a regulatory element that generally, in nature, is found in a plant genome. However, the regulatory element also can be from an organism other than a plant, including, for example, from a plant virus, an animal virus, or a cell  
20 from an animal or other multicellular organism.

A regulatory element useful for practicing method of the present is a promoter element. Useful promoters include, but are not limited to, constitutive, inducible, temporally regulated, developmentally regulated, spatially-regulated, chemically regulated, stress-responsive, tissue-specific, viral and synthetic promoters. Promoter  
25 sequences are known to be strong or weak. A strong promoter provides for a high level of gene expression, whereas a weak promoter provides for a very low level of gene expression. An inducible promoter is a promoter that provides for the turning on and off of gene expression in response to an exogenously added agent, or to an environmental or developmental stimulus. A bacterial promoter such as the P<sub>tac</sub>  
30 promoter can be induced to varying levels of gene expression depending on the level of isothiopyl galactoside added to the transformed bacterial cells. An isolated promoter sequence that is a strong promoter for heterologous nucleic acid is

advantageous because it provides for a sufficient level of gene expression to allow for easy detection and selection of transformed cells and provides for a high level of gene expression when desired.

Within a plant promoter region there are several domains that are necessary  
5 for full function of the promoter. The first of these domains lies immediately upstream of the structural gene and forms the "core promoter region" containing consensus sequences, normally 70 base pairs immediately upstream of the gene. The core promoter region contains the characteristic CAAT and TATA boxes plus surrounding sequences, and represents a transcription initiation sequence that defines  
10 the transcription start point for the structural gene.

The presence of the core promoter region defines a sequence as being a promoter: if the region is absent, the promoter is non-functional. The core promoter region, however, is insufficient to provide full promoter activity. A series of regulatory sequences upstream of the core constitute the remainder of the promoter.  
15 These regulatory sequences determine expression level, the spatial and temporal pattern of expression and, for an important subset of promoters, expression under inductive conditions (regulation by external factors such as light, temperature, chemicals, hormones).

To define a minimal promoter region, a DNA segment representing the  
20 promoter region is removed from the 5' region of the gene of interest and operably linked to the coding sequence of a marker (reporter) gene by recombinant DNA techniques well known to the art. The reporter gene is operably linked downstream of the promoter, so that transcripts initiating at the promoter proceed through the reporter gene. Reporter genes generally encode proteins which are easily measured, including,  
25 but not limited to, chloramphenicol acetyl transferase (CAT), beta-glucuronidase (GUS), green fluorescent protein (GFP),  $\beta$ -galactosidase ( $\beta$ -GAL), and luciferase.

The construct containing the reporter gene under the control of the promoter is then introduced into an appropriate cell type by transfection techniques well known to the art. To assay for the reporter protein, cell lysates are prepared and appropriate  
30 assays, which are well known in the art, for the reporter protein are performed. For example, if CAT were the reporter gene of choice, the lysates from cells transfected with constructs containing CAT under the control of a promoter under study are

mixed with isotopically labeled chloramphenicol and acetyl-coenzyme A (acetyl-CoA). The CAT enzyme transfers the acetyl group from acetyl-CoA to the 2-position or 3-position of chloramphenicol. The reaction is monitored by thin layer chromatography, which separates acetylated chloramphenicol from unreacted material. The reaction products are then visualized by autoradiography.

The level of enzyme activity corresponds to the amount of enzyme that was made, which in turn reveals the level of expression from the promoter of interest. This level of expression can be compared to other promoters to determine the relative strength of the promoter under study. In order to be sure that the level of expression is determined by the promoter, rather than by the stability of the mRNA, the level of the reporter mRNA can be measured directly, for example, by northern blot analysis. Once activity is detected, mutational and/or deletional analyses may be employed to determine the minimal region and/or sequences required to initiate transcription. Thus, sequences can be deleted at the 5' end of the promoter region and/or at the 3' end of the promoter region, and nucleotide substitutions introduced. These constructs are then introduced to cells and their activity determined.

The choice of promoter will vary depending on the temporal and spatial requirements for expression, and also depending on the target species. In some cases, expression in multiple tissues is desirable. While in others, tissue-specific, e.g., leaf-specific, seed-specific, petal-specific, anther-specific, or pith-specific, expression is desirable. Although many promoters from dicotyledons have been shown to be operational in monocotyledons and *vice versa*, ideally dicotyledonous promoters are selected for expression in dicotyledons, and monocotyledonous promoters for expression in monocotyledons. There is, however, no restriction to the origin or source of a selected promoter. It is sufficient that the promoters are operational in driving the expression of a desired nucleotide sequence in the particular cell.

A range of naturally-occurring promoters are known to be operative in plants and have been used to drive the expression of heterologous (both foreign and endogenous) genes and nucleotide sequences in plants: for example, the constitutive 35S cauliflower mosaic virus (CaMV) promoter, the ripening-enhanced tomato polygalacturonase promoter (Bird et al., 1988), the E8 promoter (Diekmann and Fischer, 1988) and the fruit specific 2A1 promoter (Pear et al., 1989). Many other

promoters, e.g., U2 and U5 snRNA promoters from maize, the promoter from alcohol dehydrogenase, the Z4 promoter from a gene encoding the Z4 22 kD zein protein, the Z10 promoter from a gene encoding a 10 kD zein protein, a Z27 promoter from a gene encoding a 27 kD zein protein, the A20 promoter from the gene encoding a 19 kD zein protein, inducible promoters, such as the light inducible promoter derived from the pea *rbcS* gene and the actin promoter from rice, e.g., the actin 2 promoter (WO 00/70067); seed specific promoters, such as the phaseolin promoter from beans, may also be used. The nucleotide sequences of the stress-regulated genes of this invention can also be expressed under the regulation of promoters that are chemically regulated. This enables the nucleic acid sequence or encoded polypeptide to be synthesized only when the crop plants are treated with the inducing chemicals. Chemical induction of gene expression is detailed in EP 0 332 104 and U.S. Pat. 5,614,395.

In some instances it may be desirable to link a constitutive promoter to a polynucleotide comprising a stress regulated gene of the invention. Examples of some constitutive promoters include the rice actin 1 (Wang et al., 1992; U.S. Pat. No. 5,641,876), CaMV 35S (Odell et al., 1985), CaMV 19S (Lawton et al., 1987), *nos*, *Adh*, sucrose synthase; and the ubiquitin promoters.

In other situations it may be desirable to limit expression of stress-related sequences to specific tissues or stages of development. As used herein, the term "tissue specific or phase specific regulatory element" means a nucleotide sequence that effects transcription in only one or a few cell types, or only during one or a few stages of the life cycle of a plant, for example, only for a period of time during a particular stage of growth, development or differentiation. The terms "tissue specific" and "phase specific" are used together herein in referring to a regulatory element because a single regulatory element can have characteristics of both types of regulatory elements. For example, a regulatory element active only during a particular stage of plant development also can be expressed only in one or a few types of cells in the plant during the particular stage of development. As such, any attempt to classify such regulatory elements as tissue specific or as phase specific can be difficult. Accordingly, unless indicated otherwise, all regulatory elements having the

characteristic of a tissue specific regulatory element, or a phase specific regulatory element, or both are considered together for purposes of the present invention.

Examples of tissue specific promoters which have been described include the lectin (Vodkin, 1983; Lindstrom et al., 1990) corn alcohol dehydrogenase 1 (Vogel et al., 1989; Dennis et al., 1984), corn light harvesting complex (Simpson, 1986; Bansal et al., 1992), corn heat shock protein (Odell et al., 1985), pea small subunit RuBP carboxylase (Poulsen et al., 1986), Ti plasmid mannopine synthase and Ti plasmid nopaline synthase (Langridge et al., 1989), petunia chalcone isomerase (vanTunen et al., 1988), bean glycine rich protein 1 (Keller et al., 1989), truncated CaMV 35s (Odell et al., 1985), potato patatin (Wenzler et al., 1989), root cell (Yamamoto et al., 1990), maize zein (Reina et al., 1990; Kriz et al., 1987; Wandelt et al., 1989; Langridge et al., 1983; Reina et al., 1990), globulin-1 (Belanger et al., 1991),  $\alpha$ -tubulin, cab (Sullivan et al., 1989), PEPCase (Hudspeth & Grula, 1989), R gene complex-associated promoters (Chandler et al., 1989), histone, and chalcone synthase promoters (Franken et al., 1991). Tissue specific enhancers are described by Fromm et al. (1989).

Several other tissue-specific regulated genes and/or promoters have been reported in plants, including genes encoding seed storage proteins such as napin, cruciferin, beta-conglycinin, and phaseolin, zein or oil body proteins such as oleosin, genes involved in fatty acid biosynthesis, including acyl carrier protein, stearyl-ACP desaturase, fatty acid desaturases (fad 2-1), and other genes expressed during embryonic development such as Bce4 (see, for example, EP 255378 and Kridl et al., 1991). Particularly useful for seed-specific expression is the pea vicilin promoter (Czako et al., 1992). (See also U.S. Pat. No. 5,625,136, which is incorporated herein by reference.) Other useful promoters for expression in mature leaves are those that are switched on at the onset of senescence, such as the SAG promoter from *Arabidopsis* (Gan et al., 1995).

A class of fruit-specific promoters expressed at or during antithesis through fruit development, at least until the beginning of ripening, is discussed in U.S. Pat. No. 4,943,674. cDNA clones that are preferentially expressed in cotton fiber have been isolated (John et al., 1992). cDNA clones from tomato displaying differential expression during fruit development have been isolated and characterized (Mansson et

al., 1985, Slater et al., 1985). The promoter for polygalacturonase gene is active in fruit ripening. The polygalacturonase gene is described in U.S. Pat. Nos. 4,535,060, 4,769,061, 4,801,590, and 5,107,065, each of which is incorporated herein by reference.

5 Other examples of tissue-specific promoters include those that direct expression in leaf cells following damage to the leaf (for example, from chewing insects), in tubers (for example, patatin gene promoter), and in fiber cells (an example of a developmentally-regulated fiber cell protein is E6 (John et al., 1992). The E6 gene is most active in fiber, although low levels of transcripts are found in leaf,  
10 ovule and flower.

Additional tissue specific or phase specific regulatory elements include, for example, the *AGL3/FRUITFULL* regulatory element, which is activated upon floral induction (Hempel et al., Development 124:3845-3853, 1997, which is incorporated herein by reference); root specific regulatory elements such as the regulatory elements  
15 from the RCP1 gene and the LRP1 gene (Tsugeki and Fedoroff, Proc. Natl. Acad. USA 96:12941-12946, 1999; Smith and Fedoroff, Plant Cell 7:735-745, 1995, each of which is incorporated herein by reference); flower specific regulatory elements such as the regulatory elements from the *LEAFY* gene and the *APETELA1* gene (Blazquez et al., Development 124:3835-3844, 1997, which is incorporated herein by reference;  
20 Hempel et al., *supra*, 1997); seed specific regulatory elements such as the regulatory element from the oleosin gene (Plant et al., Plant Mol. Biol. 25:193-205, 1994, which is incorporated herein by reference), and dehiscence zone specific regulatory element. Additional tissue specific or phase specific regulatory elements include the Zn13 promoter, which is a pollen specific promoter (Hamilton et al., Plant Mol. Biol.  
25 18:211-218, 1992, which is incorporated herein by reference); the *UNUSUAL FLORAL ORGANS (UFO)* promoter, which is active in apical shoot meristem; the promoter active in shoot meristems (Atanassova et al., Plant J. 2:291, 1992, which is incorporated herein by reference), the *cdc2a* promoter and *cyc07* promoter (see, for example, Ito et al., Plant Mol. Biol. 24:863, 1994; Martinez et al., Proc. Natl. Acad. Sci., USA 89:7360, 1992; Medford et al., Plant Cell 3:359, 1991; Terada et al., Plant J.  
30 3:241, 1993; Wissenbach et al., Plant J. 4:411, 1993, each of which is incorporated herein by reference); the promoter of the *APETELA3* gene, which is active in floral

meristems (Jack et al., Cell 76:703, 1994, which is incorporated herein by reference; Hempel et al., *supra*, 1997); a promoter of an agamous-like (AGL) family member, for example, AGL8, which is active in shoot meristem upon the transition to flowering (Hempel et al., *supra*, 1997); floral abscission zone promoters; L1-specific  
5 promoters; and the like.

The tissue-specificity of some "tissue-specific" promoters may not be absolute and may be tested by one skilled in the art using the diphtheria toxin sequence. One can also achieve tissue-specific expression with "leaky" expression by a combination of different tissue-specific promoters (Beals et al., 1997). Other tissue-specific  
10 promoters can be isolated by one skilled in the art (see U.S. 5,589,379). Several inducible promoters ("gene switches") have been reported, many of which are described in the review by Gatz (1996) and Gatz (1997). These include tetracycline repressor system, *Lac* repressor system, copper inducible systems, salicylate inducible systems (such as the PR1a system), glucocorticoid (Aoyama et al., 1997) and  
15 ecdysone inducible systems. Also included are the benzene sulphonamide (U.S. Pat. No. 5,364,780) and alcohol (WO 97/06269 and WO 97/06268) inducible systems and glutathione S-transferase promoters.

In some instances it might be desirable to inhibit expression of a native DNA sequence within a plant's tissues to achieve a desired phenotype. In this case, such  
20 inhibition might be accomplished with transformation of the plant to comprise a constitutive, tissue-independent promoter operably linked to an antisense nucleotide sequence, such that constitutive expression of the antisense sequence produces an RNA transcript that interferes with translation of the mRNA of the native DNA sequence.

25 Inducible regulatory elements also are useful for purposes of the present invention. As used herein, the term "inducible regulatory element" means a regulatory element that, when exposed to an inducing agent, effects an increased level of transcription of a nucleotide sequence to which it is operatively linked as compared to the level of transcription, if any, in the absence of an inducing agent. Inducible  
30 regulatory elements can be those that have no basal or constitutive activity and only effect transcription upon exposure to an inducing agent, or those that effect a basal or constitutive level of transcription, which is increased upon exposure to an inducing

agent. Inducible regulatory elements that effect a basal or constitutive level of expression generally are useful in a method or composition of the invention where the induced level of transcription is substantially greater than the basal or constitutive level of expression, for example, at least about two-fold greater, or at least about five-fold greater. Particularly useful inducible regulatory elements do not have a basal or constitutive activity, or increase the level of transcription at least about ten-fold greater than a basal or constitutive level of transcription associated with the regulatory element.

Inducible promoters that have been described include the ABA- and turgor-inducible promoters, the promoter of the auxin-binding protein gene (Schwob et al., 1993), the UDP glucose flavonoid glycosyl-transferase gene promoter (Ralston et al., 1988), the MPI proteinase inhibitor promoter (Cordero et al., 1994), and the glyceraldehyde-3-phosphate dehydrogenase gene promoter (Kohler et al., 1995; Quigley et al., 1989; Martinez et al., 1989).

The term "inducing agent" is used to refer to a chemical, biological or physical agent or environmental condition that effects transcription from an inducible regulatory element. In response to exposure to an inducing agent, transcription from the inducible regulatory element generally is initiated *de novo* or is increased above a basal or constitutive level of expression. Such induction can be identified using the methods disclosed herein, including detecting an increased level of RNA transcribed from a nucleotide sequence operatively linked to the regulatory element, increased expression of a polypeptide encoded by the nucleotide sequence, or a phenotype conferred by expression of the encoded polypeptide.

An inducing agent useful in a method of the invention is selected based on the particular inducible regulatory element. For example, the inducible regulatory element can be a metallothionein regulatory element, a copper inducible regulatory element or a tetracycline inducible regulatory element, the transcription from which can be effected in response to metal ions, copper or tetracycline, respectively (Furst et al., Cell 55:705-717, 1988; Mett et al., Proc. Natl. Acad. Sci., USA 90:4567-4571, 1993; Gatz et al., Plant J. 2:397-404, 1992; Roder et al., Mol. Gen. Genet. 243:32-38, 1994, each of which is incorporated herein by reference). The inducible regulatory element also can be an ecdysone regulatory element or a glucocorticoid regulatory



element, the transcription from which can be effected in response to ecdysone or other steroid (Christopherson et al., Proc. Natl. Acad. Sci., USA 89:6314-6318, 1992; Schena et al., Proc. Natl. Acad. Sci., USA 88:10421-10425, 1991, each of which is incorporated herein by reference). In addition, the regulatory element can be a cold responsive regulatory element or a heat shock regulatory element, the transcription of which can be effected in response to exposure to cold or heat, respectively (Takahashi et al., Plant Physiol. 99:383-390, 1992, which is incorporated herein by reference). Additional regulatory elements useful in the methods or compositions of the invention include, for example, the spinach nitrite reductase gene regulatory element (Back et al., Plant Mol. Biol. 17:9, 1991, which is incorporated herein by reference); a light inducible regulatory element (Feinbaum et al., Mol. Gen. Genet. 226:449, 1991; Lam and Chua, Science 248:471, 1990, each of which is incorporated herein by reference), a plant hormone inducible regulatory element (Yamaguchi-Shinozaki et al., Plant Mol. Biol. 15:905, 1990; Kares et al., Plant Mol. Biol. 15:225, 1990, each of which is incorporated herein by reference), and the like.

An inducible regulatory element also can be a plant stress-regulated regulatory element of the invention. In addition to the known stress conditions that specifically induce or repress expression from such elements, the present invention provides methods of identifying agents that mimic a stress condition. Accordingly, such stress mimics are considered inducing or repressing agents with respect to a plant stress-regulated regulatory element. In addition, a recombinant polypeptide comprising a zinc finger domain, which is specific for the regulatory element, and an effector domain, particularly an activator, can be useful as an inducing agent for a plant stress-regulated regulatory element. Furthermore, such a recombinant polypeptide provides the advantage that the effector domain can be a repressor domain, thereby providing a repressing agent, which decreases expression from the regulatory element. In addition, use of such a method of modulating expression of an endogenous plant stress-regulated gene provides the advantage that the polynucleotide encoding the recombinant polypeptide can be introduced into cells of the plant, thus providing a transgenic plant that can be regulated coordinately with the endogenous plant stress-regulated gene upon exposure to a stress condition. A polynucleotide encoding such a

recombinant polypeptide can be operatively linked to and expressed from a constitutively active, inducible or tissue specific or phase specific regulatory element.

In one embodiment, the promoter may be a gamma zein promoter, an oleosin ole16 promoter, a globulin I promoter, an actin I promoter, an actin c1 promoter, a  
 5 sucrose synthetase promoter, an INOPS promoter, an EXM5 promoter, a globulin2 promoter, a b-32, ADPG-pyrophosphorylase promoter, an LtpI promoter, an Ltp2 promoter, an oleosin ole17 promoter, an oleosin ole18 promoter, an actin 2 promoter, a pollen-specific protein promoter, a pollen-specific pectate lyase promoter, an anther-specific protein promoter (Huffman), an anther-specific gene RTS2 promoter, a  
 10 pollen- specific gene promoter, a tapetum-specific gene promoter, tapetum- specific gene RAB24 promoter, a anthranilate synthase alpha subunit promoter, an alpha zein promoter, an anthranilate synthase beta subunit promoter, a dihydrodipicolinate synthase promoter, a Thi 1 promoter, an alcohol dehydrogenase promoter, a cab binding protein promoter, an H3C4 promoter, a RUBISCO SS starch branching  
 15 enzyme promoter, an ACCase promoter, an actin3 promoter, an actin7 promoter, a regulatory protein GF14-12 promoter, a ribosomal protein L9 promoter, a cellulose biosynthetic enzyme promoter, an S-adenosyl-L-homocysteine hydrolase promoter, a superoxide dismutase promoter, a C-kinase receptor promoter, a phosphoglycerate mutase promoter, a root-specific RCc3 mRNA promoter, a glucose-6 phosphate  
 20 isomerase promoter, a pyrophosphate-fructose 6-phosphatetphosphotransferase promoter, an ubiquitin promoter, a beta-ketoacyl-ACP synthase promoter, a 33 kDa photosystem 11 promoter, an oxygen evolving protein promoter, a 69 kDa vacuolar ATPase subunit promoter, a metallothionein-like protein promoter, a glyceraldehyde-3-phosphate dehydrogenase promoter, an ABA- and ripening- inducible-like protein  
 25 promoter, a phenylalanine ammonia lyase promoter, an adenosine triphosphatase S-adenosyl-L-homocysteine hydrolase promoter, an a- tubulin promoter, a cab promoter, a PEPCase promoter, an R gene promoter, a lectin promoter, a light harvesting complex promoter, a heat shock protein promoter, a chalcone synthase promoter, a zein promoter, a globulin-1 promoter, an ABA promoter, an auxin-  
 30 binding protein promoter, a UDP glucose flavonoid glycosyl-transferase gene promoter, an NTI promoter, an actin promoter, an opaque 2 promoter, a b70 promoter, an oleosin promoter, a CaMV 35S promoter, a CaMV 19S promoter, a histone

promoter, a turgor-inducible promoter, a pea small subunit RuBP carboxylase promoter, a Ti plasmid mannopine synthase promoter, Ti plasmid nopaline synthase promoter, a petunia chalcone isomerase promoter, a bean glycine rich protein I promoter, a CaMV 35S transcript promoter, a potato patatin promoter, or a S-E9 small  
5 subunit RuBP carboxylase promoter.

In addition to promoters, a variety of 5N and 3N transcriptional regulatory sequences are also available for use in the present invention. Transcriptional terminators are responsible for the termination of transcription and correct mRNA polyadenylation. The 3'-untranslated regulatory DNA sequence preferably includes  
10 from about 50 to about 1,000, more preferably about 100 to about 1,000, nucleotide base pairs and contains plant transcriptional and translational termination sequences. Appropriate transcriptional terminators and those which are known to function in plants include the CaMV 35S terminator, the *tml* terminator, the nopaline synthase terminator, the pea *rbcS* E9 terminator, the terminator for the T7 transcript from the  
15 octopine synthase gene of *Agrobacterium tumefaciens*, and the 3N end of the protease inhibitor I or II genes from potato or tomato, although other 3N elements known to those of skill in the art can also be employed. Alternatively, one also could use a gamma coixin, oleosin 3 or other terminator from the genus *Coix*. Preferred 3' elements include those from the nopaline synthase gene of *Agrobacterium*  
20 *tumefaciens* (Bevan et al., 1983), the terminator for the T7 transcript from the octopine synthase gene of *Agrobacterium tumefaciens*, and the 3' end of the protease inhibitor I or II genes from potato or tomato.

As the DNA sequence between the transcription initiation site and the start of the coding sequence, i.e., the untranslated leader sequence, can influence gene  
25 expression, one may also wish to employ a particular leader sequence. Preferred leader sequences are contemplated to include those that include sequences predicted to direct optimum expression of the attached sequence, i.e., to include a preferred consensus leader sequence that may increase or maintain mRNA stability and prevent inappropriate initiation of translation. The choice of such sequences will be known to  
30 those of skill in the art in light of the present disclosure. Sequences that are derived from genes that are highly expressed in plants will be most preferred.

Other sequences that have been found to enhance gene expression in transgenic plants include intron sequences (e.g., from *Adh1*, *bronzel*, *actin1*, *actin 2* (WO 00/760067), or the sucrose synthase intron) and viral leader sequences (e.g., from TMV, MCMV and AMV). For example, a number of non-translated leader sequences derived from viruses are known to enhance expression. Specifically, leader sequences from tobacco mosaic virus (TMV), maize chlorotic mottle virus (MCMV), and alfalfa mosaic virus (AMV) have been shown to be effective in enhancing expression (e.g., Gallie et al., 1987; Skuzeski et al., 1990). Other leaders known in the art include but are not limited to picornavirus leaders, for example, EMCV leader (encephalomyocarditis virus 5' non-coding region; Elroy-Stein et al., 1989); potyvirus leaders, for example, TEV leader (tobacco etch virus); MDMV leader (maize dwarf mosaic virus); human immunoglobulin heavy chain binding protein (BiP) leader, (Miacejak et al., 1991); untranslated leader from the coat protein mRNA of AMV (AMV RNA 4; Jobling et al., 1987), TMV (Gallie et al., 1989), and MCMV (Lommel et al., 1991; see also, della Cioppa et al., 1987).

Regulatory elements such as *Adh* intron 1 (Callis et al., 1987), sucrose synthase intron (Vasil et al., 1989) or TMV omega element (Gallie, et al., 1989), may further be included where desired. Examples of enhancers include elements from the CaMV 35S promoter, octopine synthase genes (Ellis et al., 1987), the rice actin I gene, the maize alcohol dehydrogenase gene (Callis et al., 1987), the maize shrunken I gene (Vasil et al., 1989), TMV Omega element (Gallie et al., 1989) and promoters from non-plant eukaryotes (e.g. yeast; Ma et al., 1988).

Vectors for use in accordance with the present invention may be constructed to include the ocs enhancer element, which was first identified as a 16 bp palindromic enhancer from the octopine synthase (ocs) gene of *utilane* (Ellis et al., 1987), and is present in at least 10 other promoters (Bouchez et al., 1989). The use of an enhancer element, such as the ocs element and particularly multiple copies of the element, will act to increase the level of transcription from adjacent promoters when applied in the context of monocot transformation.

The methods of the invention provide genetically modified plant cells, which can contain, for example, a coding region, or peptide portion thereof, of a plant stress-regulated gene operatively linked to a heterologous inducible regulatory element; or a

plant stress-regulated regulatory element operatively linked to a heterologous nucleotide sequence encoding a polypeptide of interest. In such a plant, the expression from the inducible regulatory element can be effected by exposing the plant cells to an inducing agent in any of numerous ways depending, for example, on the inducible regulatory element and the inducing agent. For example, where the inducible regulatory element is a cold responsive regulatory element present in the cells of a transgenic plant, the plant can be exposed to cold conditions, which can be produced artificially, for example, by placing the plant in a thermostatically controlled room, or naturally, for example, by planting the plant in an environment characterized, at least in part, by attaining temperatures sufficient to induce transcription from the promoter but not so cold as to kill the plants. By examining the phenotype of such transgenic plants, those plants that ectopically express a gene product that confers increased resistance of the plant to cold can be identified. Similarly, a transgenic plant containing a metallothionein promoter can be exposed to metal ions such as cadmium or copper by watering the plants with a solution containing the inducing metal ions, or can be planted in soil that is contaminated with a level of such metal ions that is toxic to most plants. The phenotype of surviving plants can be observed, those expressing desirable traits can be selected.

As used herein, the term "phenotype" refers to a physically detectable characteristic. A phenotype can be identified visually by inspecting the physical appearance of a plant following exposure, for example, to increased osmotic conditions; can be identified using an assay to detecting a product produced due to expression of reporter gene, for example, an RNA molecule, a polypeptide such as an enzyme, or other detectable signal such as disclosed herein; or by using any appropriate tool useful for identifying a phenotype of a plant, for example, a microscope, a fluorescence activated cell sorter, or the like.

A transgenic plant containing an inducible regulatory element such as a steroid inducible regulatory element can be exposed to a steroid by watering the plants with a solution containing the steroid. The use of an inducible regulatory element that is induced upon exposure to a chemical or biological inducing agent that can be placed in solution or suspension in an aqueous medium can be particularly useful because the inducing agent can be applied conveniently to a relatively large crop of transgenic

plants containing the inducible regulatory element, for example, through a watering system or by spraying the inducing agent over the field. As such, inducible regulatory elements that are responsive to an environmental inducing agent, for example, cold; heat; metal ions or other potentially toxic agents such as pesticides, which can  
5 contaminate a soil; or the like; or inducible regulatory elements that are regulated by inducing agents that conveniently can be applied to plants, can be particularly useful in a method or composition of the invention, and allow the identification and selection of plants that express desirable traits and survive and grow in environments that otherwise would not support growth of the plants.

10 As disclosed herein, the present invention provides plant stress-regulated regulatory elements, which are identified based on the expression of clusters of plant genes in response to stress. As used herein, the term "stress-regulated regulatory element of a plant" or "plant stress-regulated regulatory element" means a nucleotide sequence of a plant genome that can respond to a stress such that expression of a gene  
15 product encoded by a gene comprising the regulatory element (a stress-inducible gene) is increased above or decreased below the level of expression of the gene product in the absence of the stress condition. The regulatory element can be any gene regulatory element, including, for example, a promoter, an enhancer, a silencer, or the like. In one embodiment, the plant stress-regulated regulatory element is a  
20 plant stress-regulated promoter.

For purposes of modulating the responsiveness of a plant to a stress condition, it can be useful to introduce a modified plant stress-regulated regulatory element into a plant. Such a modified regulatory element can have any desirable characteristic, for example, it can be inducible to a greater level than the corresponding wild-type  
25 promoter, or it can be inactivated such that, upon exposure to a stress, there is little or no induction of expression of a nucleotide sequence operatively linked to the mutant element. A plant stress-regulated regulatory element can be modified by incorporating random mutations using, for example, *in vitro* recombination or DNA shuffling (Stemmer et al., Nature 370: 389-391, 1994; U.S. Pat. No. 5,605,793, each  
30 of which is incorporated herein by reference). Using such a method, millions of mutant copies of the polynucleotide, for example, stress-regulated regulatory element,

can be produced based on the original nucleotide sequence, and variants with improved properties, such as increased inducibility can be recovered.

A mutation method such as DNA shuffling encompasses forming a mutagenized double-stranded polynucleotide from a template double-stranded polynucleotide, wherein the template double-stranded polynucleotide has been  
5 cleaved into double stranded random fragments of a desired size, and comprises the steps of adding to the resultant population of double-stranded random fragments one or more single or double stranded oligonucleotides, wherein the oligonucleotides comprise an area of identity and an area of heterology to the double stranded template  
10 polynucleotide; denaturing the resultant mixture of double stranded random fragments and oligonucleotides into single stranded fragments; incubating the resultant population of single stranded fragments with a polymerase under conditions that result in the annealing of the single stranded fragments at the areas of identity to form pairs of annealed fragments, the areas of identity being sufficient for one member of a  
15 pair to prime replication of the other, thereby forming a mutagenized double-stranded polynucleotide; and repeating the second and third steps for at least two further cycles, wherein the resultant mixture in the second step of a further cycle includes the mutagenized double-stranded polynucleotide from the third step of the previous cycle, and the further cycle forms a further mutagenized double-stranded polynucleotide.  
20 Preferably, the concentration of a single species of double stranded random fragment in the population of double stranded random fragments is less than 1% by weight of the total DNA. In addition, the template double stranded polynucleotide can comprise at least about 100 species of polynucleotides. The size of the double stranded random fragments can be from about 5 base pairs to 5 kilobase pairs. In a further  
25 embodiment, the fourth step of the method comprises repeating the second and the third steps for at least 10 cycles.

A plant stress-regulated regulatory element of the invention is useful for expressing a nucleotide sequence operatively linked to the element in a cell, particularly a plant cell. As used herein, the term "expression" refers to the  
30 transcription and/or translation of an endogenous gene or a transgene in plants. In the case of an antisense molecule, for example, the term "expression" refers to the transcription of the polynucleotide encoding the antisense molecule.

As used herein, the term "operatively linked," when used in reference to a plant stress-regulated regulatory element, means that the regulatory element is positioned with respect to a second nucleotide sequence such that the regulatory element effects transcription or transcription and translation of the nucleotide sequence in substantially the same manner, but not necessarily to the same extent, as it does when the regulatory element is present in its natural position in a genome. Transcriptional promoters, for example, generally act in a position and orientation dependent manner and usually are positioned at or within about five nucleotides to about fifty nucleotides 5' (upstream) of the start site of transcription of a gene in nature. In comparison, enhancers and silencers can act in a relatively position or orientation independent manner and, therefore, can be positioned several hundred or thousand nucleotides upstream or downstream from a transcription start site, or in an intron within the coding region of a gene, yet still be operatively linked to a coding region so as to effect transcription.

The second nucleotide sequence, i.e., the sequence operatively linked to the plant stress-regulated regulatory element, can be any nucleotide sequence, including, for example, a coding region of a gene or cDNA; a sequence encoding an antisense molecule, an RNAi molecule, ribozyme, triplexing agent (see, for example, Frank-Kamenetskii and Mirkin, Ann. Rev. Biochem. 64:65-95, 1995), or the like; or a sequence that, when transcribed, can be detected in the cell using, for example, by hybridization or amplification, or when translated produces a detectable signal. The term "coding region" is used broadly herein to include a nucleotide sequence of a genomic DNA or a cDNA molecule comprising all or part of a coding region of the coding strand. A coding region can be transcribed from an operatively linked regulatory element, and can be translated into a full length polypeptide or a peptide portion of a polypeptide. It should be recognized that, in a nucleotide sequence comprising a coding region, not all of the nucleotides in the sequence need necessarily encode the polypeptide and, particularly, that a gene transcript can contain one or more introns, which do not encode an amino acid sequence of a polypeptide but, nevertheless, are part of the coding region, particularly the coding strand, of the gene.

The present invention also relates to a recombinant polynucleotide, which contains a polynucleotide portion of a plant stress-regulated gene operatively linked to



a heterologous nucleotide sequence. As used herein, the term "polynucleotide portion of plant stress-regulated sequence" means a contiguous nucleotide sequence of the plant stress-regulated gene that provides a function. The portion can be any portion of the sequence, particularly a coding sequence, or a sequence encoding a peptide  
5 portion of the stress-regulated polypeptide; the stress-regulated regulatory element; a sequence useful as an antisense molecule or triplexing agent; or a sequence useful for disrupting (knocking-out) an endogenous plant stress-regulated gene.

A heterologous nucleotide sequence is a nucleotide sequence that is not normally part of the plant stress-regulated gene from which the polynucleotide portion  
10 of the plant stress-regulated gene-component of the recombinant polynucleotide is obtained; or, if it is a part of the plant stress-regulated gene from which the polynucleotide portion is obtained, it is an orientation other than it would normally be in, for example, is an antisense sequence, or comprises at least partially discontinuous as compared to the genomic structure, for example, a single exon operatively linked to  
15 the regulatory element. In general, where the polynucleotide portion of the plant stress-regulated gene comprises the coding sequence in a recombinant polynucleotide of the invention, the heterologous nucleotide sequence will function as a regulatory element. The regulatory element can be any heterologous regulatory element, including, for example, a constitutively active regulatory element, an inducible  
20 regulatory element, or a tissue specific or phase specific regulatory element, as disclosed above. Conversely, where the polynucleotide portion of the plant stress-regulated polynucleotide comprises the stress-regulated regulatory element of a recombinant polynucleotide of the invention, the heterologous nucleotide sequence generally will be a nucleotide sequence that can be transcribed and, if desired,  
25 translated. Where the heterologous nucleotide sequence is expressed from a plant stress-regulated regulatory element, it generally confers a desirable phenotype to a plant cell containing the recombinant polynucleotide, or provides a means to identify a plant cell containing the recombinant polynucleotide. It should be recognized that a "desirable" phenotype can be one that decreases the ability of a plant cell to compete  
30 where the plant cell, or a plant containing the cell, is an undesired plant cell. Thus, a heterologous nucleotide sequence can allow a plant to grow, for example, under conditions in which it would not normally be able to grow.

A heterologous nucleotide sequence can be, or encode, a selectable marker. As used herein, the term "selectable marker" is used herein to refer to a molecule that, when present or expressed in a plant cell, provides a means to identify a plant cell containing the marker. As such, a selectable marker can provide a means for  
5 screening a population of plants, or plant cells, to identify those having the marker. A selectable marker also can confer a selective advantage to the plant cell, or a plant containing the cell. The selective advantage can be, for example, the ability to grow in the presence of a negative selective agent such as an antibiotic or herbicide, compared to the growth of plant cells that do not contain the selectable marker. The  
10 selective advantage also can be due, for example, to an enhanced or novel capacity to utilize an added compound as a nutrient, growth factor or energy source. A selectable advantage can be conferred, for example, by a single polynucleotide, or its expression product, or to a combination of polynucleotides whose expression in a plant cell gives the cell with a positive selective advantage, a negative selective advantage, or both.

15 Examples of selectable markers include those that confer antimetabolite resistance, for example, dihydrofolate reductase, which confers resistance to methotrexate (Reiss, Plant Physiol. (Life Sci. Adv.) 13:143-149, 1994); neomycin phosphotransferase, which confers resistance to the aminoglycosides neomycin, kanamycin and paromycin (Herrera-Estrella, EMBO J. 2:987-995, 1983) and hygromycin  
20 which confers resistance to hygromycin (Marsh, Gene 32:481-485, 1984), *trpB*, which allows cells to utilize indole in place of tryptophan; *hisD*, which allows cells to utilize histinol in place of histidine (Hartman, Proc. Natl. Acad. Sci., USA 85:8047, 1988); mannose-6-phosphate isomerase which allows cells to utilize mannose (WO 94/20627); ornithine decarboxylase, which confers resistance to the ornithine  
25 decarboxylase inhibitor, 2-(difluoromethyl)-DL-ornithine (DFMO; McConlogue, 1987, In: *Current Communications in Molecular Biology*, Cold Spring Harbor Laboratory ed.); and deaminase from *Aspergillus terreus*, which confers resistance to Blasticidin S (Tamura, Biosci. Biotechnol. Biochem. 59:2336-2338, 1995).

Additional selectable markers include those that confer herbicide resistance, for  
30 example, phosphinothricin acetyltransferase gene, which confers resistance to phosphinothricin (White et al., Nucl. Acids Res. 18:1062, 1990; Spencer et al., Theor. Appl. Genet. 79:625-631, 1990), a mutant EPSPV-synthase, which confers glyphosate

resistance (Hinchee et al., Bio/Technology 91:915-922, 1998), a mutant acetolactate synthase, which confers imidazolione or sulfonylurea resistance (Lee et al., EMBO J. 7:1241-1248, 1988), a mutant psbA, which confers resistance to atrazine (Smeda et al., Plant Physiol. 103:911-917, 1993), or a mutant protoporphyrinogen oxidase (see  
5 U.S. Pat. No. 5,767,373), or other markers conferring resistance to an herbicide such as glufosinate. In addition, markers that facilitate identification of a plant cell containing the polynucleotide encoding the marker include, for example, luciferase (Giacomin, Plant Sci. 116:59-72, 1996; Scikantha, J. Bacteriol. 178:121, 1996), green fluorescent protein (Gerdes, FEBS Lett. 389:44-47, 1996) or fl-glucuronidase  
10 (Jefferson, EMBO J. 6:3901-3907, 1997), and numerous others as disclosed herein or otherwise known in the art. Such markers also can be used as reporter molecules.

A heterologous nucleotide sequence can encode an antisense molecule, particularly an antisense molecule specific for a nucleotide sequence of a plant stress-regulated gene, for example, the gene from which the regulatory component of the  
15 recombinant polynucleotide is derived. Such a recombinant polynucleotide can be useful for reducing the expression of a plant stress-regulated polypeptide in response to a stress condition because the antisense molecule, like the polypeptide, only will be induced upon exposure to the stress. A heterologous nucleotide sequence also can be, or can encode, a ribozyme or a triplexing agent. In addition to being useful as  
20 heterologous nucleotide sequences, such molecules also can be used directly in a method of the invention, for example, to modulate the responsiveness of a plant cell to a stress condition. Thus, an antisense molecule, ribozyme, or triplexing agent can be contacted directly with a target cell and, upon uptake by the cell, can effect their antisense, ribozyme or triplexing activity; or can be encoded by a heterologous  
25 nucleotide sequence that is expressed in a plant cell from a plant stress-regulated regulatory element, whereupon it can effect its activity.

An antisense polynucleotide, ribozyme or triplexing agent is complementary to a target sequence, which can be a DNA or RNA sequence, for example, messenger RNA, and can be a coding sequence, a nucleotide sequence comprising an intron-exon  
30 junction, a regulatory sequence such as a Shine-Delgarno-like sequence, or the like. The degree of complementarity is such that the polynucleotide, for example, an antisense polynucleotide, can interact specifically with the target sequence in a cell.

Depending on the total length of the antisense or other polynucleotide, one or a few mismatches with respect to the target sequence can be tolerated without losing the specificity of the polynucleotide for its target sequence. Thus, few if any mismatches would be tolerated in an antisense molecule consisting, for example, of twenty  
5 nucleotides, whereas several mismatches will not affect the hybridization efficiency of an antisense molecule that is complementary, for example, to the full length of a target mRNA encoding a cellular polypeptide. The number of mismatches that can be tolerated can be estimated, for example, using well known formulas for determining hybridization kinetics (see Sambrook et al., "Molecular Cloning; A Laboratory  
10 Manual" 2nd Edition (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY; 1989)) or can be determined empirically using methods as disclosed herein or otherwise known in the art, particularly by determining that the presence of the antisense polynucleotide, ribozyme, or triplexing agent in a cell decreases the level of the target sequence or the expression of a polypeptide encoded by the target sequence  
15 in the cell.

A nucleotide sequence useful as an antisense molecule, a ribozyme or a triplexing agent can inhibit translation or cleave a polynucleotide encoded by plant stress-regulated gene, thereby modulating the responsiveness of a plant cell to a stress condition. An antisense molecule, for example, can bind to an mRNA to form a  
20 double stranded molecule that cannot be translated in a cell. Antisense oligonucleotides of at least about 15 to 25 nucleotides are preferred since they are easily synthesized and can hybridize specifically with a target sequence, although longer antisense molecules can be expressed from a recombinant polynucleotide introduced into the target cell. Specific nucleotide sequences useful as antisense  
25 molecules can be identified using well known methods, for example, gene walking methods (see, for example, Seimiya et al., J. Biol. Chem. 272:4631-4636 (1997), which is incorporated herein by reference). Where the antisense molecule is contacted directly with a target cell, it can be operatively associated with a chemically reactive group such as iron-linked EDTA, which cleaves a target RNA at the site of  
30 hybridization. A triplexing agent, in comparison, can stall transcription (Maher et al., Antisense Res. Devel. 1:227 (1991); Helene, Anticancer Drug Design 6:569 (1991)).

A plant stress-regulated regulatory element can be included in an expression cassette. As used herein, the term "expression cassette" refers to a nucleotide sequence that can direct expression of an operatively linked polynucleotide. Thus, a plant stress-regulated regulatory element can constitute an expression cassette, or component thereof. An expression cassette is particularly useful for directing expression of a nucleotide sequence, which can be an endogenous nucleotide sequence or a heterologous nucleotide sequence, in a cell, particularly a plant cell. If desired, an expression cassette also can contain additional regulatory elements, for example, nucleotide sequences required for proper translation of a polynucleotide sequence into a polypeptide. In general, an expression cassette can be introduced into a plant cell such that the plant cell, a plant resulting from the plant cell, seeds obtained from such a plant, or plants produced from such seeds are resistant to a stress condition.

Additional regulatory sequences as disclosed above or other desirable sequences such as selectable markers or the like can be incorporated into an expression cassette containing a plant stress-regulated regulatory element (see, for example, WO 99/47552). Examples of suitable markers include dihydrofolate reductase (DHFR) or neomycin resistance for eukaryotic cells and tetracycline or ampicillin resistance for *E. coli*. Selection markers in plants include bleomycin, gentamycin, glyphosate, hygromycin, kanamycin, methotrexate, phleomycin, phosphinotricin, spectinomycin, streptomycin, sulfonamide and sulfonylureas resistance (see, for example, Maliga et al., *Methods in Plant Molecular Biology*, Cold Spring Harbor Laboratory Press, 1995, page 39). The selection marker can have its own promoter or its expression can be driven by the promoter operably linked to the sequence of interest. Additional sequences such as intron sequences (e.g. from *Adh1* or *bronzel*) or viral leader sequences (e.g. from TMV, MCMV and AIVIV), all of which can enhance expression, can be included in the cassette. In addition, where it is desirable to target expression of a nucleotide sequence operatively linked to the stress-regulated regulatory element, a sequence encoding a cellular localization motif can be included in the cassette, for example, such that an encoded transcript or translation product is translocated to and localizes in the cytosol, nucleus, a chloroplast, or another subcellular organelle. Examples of useful transit peptides and transit peptide

sequences can be found in Von Heijne et al., Plant Mol. Biol. Rep. 9: 104, 1991; Clark et al., J. Biol. Chem. 264:17544, 1989; della Cioppa et al., Plant Physiol. 84:965, 1987; Romer et al., Biochem. Biophys. Res. Comm. 196:1414, 1993; Shah et al., Science 233:478, 1986; Archer et al., J. Bioenerg Biomemb. 22:789, 1990; Scandalios, Prog. Clin. Biol. Res. 344:515, 1990; Weisbeek et al., J. Cell Sci. Suppl. 11:199, 1989; Bruce, Trends Cell Biol. 10:440, 2000. The present invention can utilize native or heterologous transit peptides. The encoding sequence for a transit peptide can include all or a portion of the encoding sequence for a particular transit peptide, and may also contain portions of the mature protein encoding sequence associated with a particular transit peptide.

A polynucleotide portion of a plant stress-regulated plant gene, or an expression cassette, can be introduced into a cell as a naked DNA molecule, can be incorporated in a matrix such as a liposome or a particle such as a viral particle, or can be incorporated into a vector. Such vectors can be cloning or expression vectors, but other uses are within the scope of the present invention. A cloning vector is a self-replicating DNA molecule that serves to transfer a DNA segment into a host cell. The three most common types of cloning vectors are bacterial plasmids, phages, and other viruses. An expression vector is a cloning vector designed so that a coding sequence inserted at a particular site will be transcribed and translated into a protein. Incorporation of the polynucleotide into a vector can facilitate manipulation of the polynucleotide, or introduction of the polynucleotide into a plant cell. A vector can be derived from a plasmid or a viral vector such as a T-DNA vector (Horsch et al., Science 227:1229-1231, 1985, which is incorporated herein by reference). If desired, the vector can comprise components of a plant transposable element, for example, a Ds transposon (Bancroft and Dean, Genetics 134:1221-1229, 1993, which is incorporated herein by reference) or an Spm transposon (Aarts et al., Mol. Gen. Genet. 247:555-564, 1995, which is incorporated herein by reference).

In addition to containing the polynucleotide portion of a plant stress-regulated gene, a vector can contain various nucleotide sequences that facilitate, for example, rescue of the vector from a transformed plant cell; passage of the vector in a host cell, which can be a plant, animal, bacterial, or insect host cell; or expression of an encoding nucleotide sequence in the vector, including all or a portion of a rescued

coding region. As such, the vector can contain any of a number of additional transcription and translation elements, including constitutive and inducible promoters, enhancers, and the like (see, for example, Bitter et al., Meth. Enzymol. 153:516-544, 1987). For example, a vector can contain elements useful for passage, growth or  
5 expression in a bacterial system, including a bacterial origin of replication; a promoter, which can be an inducible promoter; and the like. In comparison, a vector that can be passaged in a mammalian host cell system can have a promoter such as a metallothionein promoter, which has characteristics of both a constitutive promoter and an inducible promoter, or a viral promoter such as a retrovirus long terminal  
10 repeat, an adenovirus late promoter, or the like. A vector also can contain one or more restriction endonuclease recognition and cleavage sites, including, for example, a polylinker sequence, to facilitate rescue of a nucleotide sequence operably linked to the polynucleotide portion.

The present invention also relates to a method of using a polynucleotide  
15 portion of a plant stress-regulated gene to confer a selective advantage on a plant cell. Such a method can be performed by introducing, for example, a plant stress-regulated regulatory element into a plant cell, wherein, upon exposure of the plant cell to a stress condition to which the regulatory element is responsive, a nucleotide sequence operatively linked to the regulatory element is expressed, thereby conferring a  
20 selective advantage to plant cell. The operatively linked nucleotide sequence can be a heterologous nucleotide sequence, which can be operatively linked to the regulatory element prior to introduction of the regulatory sequence into the plant cell; or can be an endogenous nucleotide sequence into which the regulatory element was targeted by a method such as homologous recombination. The selective advantage conferred by  
25 the operatively linked nucleotide sequence can be such that the plant is better able to tolerate the stress condition; or can be any other selective advantage.

As used herein, the term "selective advantage" refers to the ability of a particular organism to better propagate, develop, grow, survive, or otherwise tolerate a condition as compared to a corresponding reference organism that does not contain  
30 a plant-stress regulated polynucleotide portion of the present invention. In one embodiment, a selective advantage is exemplified by the ability of a desired plant, plant cell, or the like, that contains an introduced plant stress-regulated regulatory

element, to grow better than an undesired plant, plant cell, or the like, that does not contain the introduced regulatory element. For example, a recombinant polynucleotide comprising a plant stress-regulated regulatory element operatively linked to a heterologous nucleotide sequence encoding an enzyme that inactivates an herbicide can be introduced in a desired plant. Upon exposure of a mixed population of plants comprising the desired plants, which contain the recombinant polynucleotide, and one or more other populations of undesired plants, which lack the recombinant polynucleotide, to a stress condition that induces expression of the regulatory element and to the herbicide, the desired plants will have a greater likelihood of surviving exposure to the toxin and, therefore, a selective advantage over the undesired plants.

In another embodiment, a selective advantage is exemplified by the ability of a desired plant, plant cell, or the like, to better propagate, develop, grow, survive, or otherwise tolerate a condition as compared to an undesired plant, plant cell, or the like, that contains an introduced plant stress-regulated regulatory element. For example, a recombinant polynucleotide comprising a plant stress-regulated regulatory element operatively linked to a plant cell toxin can be introduced into cells of an undesirable plant present in a mixed population of desired and undesired plants, for example, food crops and weeds, respectively, then the plants can be exposed to stress conditions that induce expression from the plant stress-regulated regulatory element, whereby expression of the plant cell toxin results in inhibition of growth or death of the undesired plants, thereby providing a selective advantage to the desired plants, which no longer have to compete with the undesired plants for nutrients, light, or the like. In another example, a plant stress-regulated regulatory element operatively linked to a plant cell toxin can be introduced into cells of plants used as a nurse crop. Nurse crops, also called cover or companion crops, are planted in combination with plants of interest to provide, among other things, shade and soil stability during establishment of the desired plants. Once the desired plants have become established, the presence of the nurse crop may no longer be desirable. Exposure to conditions inducing expression of the gene linked to the plant stress-regulated regulatory element allows elimination of the nurse crop. Alternatively nurse crops can be made less tolerate to abiotic stress by the inhibition of any of the stress-regulated sequences



disclosed herein. Inhibition can be accomplished by any of the method described herein. Upon exposure of the nurse crop to the stress, the decreased ability of the nurse crop to respond to the stress will result in elimination of the nurse crop, leaving only the desired plants.

5           The invention also provides a means of producing a transgenic plant, which comprises plant cells that exhibit altered responsiveness to a stress condition. As such, the present invention further provides a transgenic plant, or plant cells or tissues derived therefrom, which are genetically modified to respond to stress differently than a corresponding wild-type plant or plant not containing constructs of the present  
10   invention would respond. As used herein, the term "responsiveness to a stress condition" refers to the ability of a plant to express a plant stress-regulated gene upon exposure to the stress condition. A transgenic plant cell contains a polypeptide portion of a plant stress-regulated gene, or a mutant form thereof, for example, a knock-out mutant. A knock-out mutant form of a plant stress-regulated gene can  
15   contain, for example, a mutation such that a STOP codon is introduced into the reading frame of the translated portion of the gene such that expression of a functional stress-regulated polypeptide is prevented; or a mutation in the stress-regulated regulatory element such that inducibility of the element in response to a stress condition is inhibited. Such transgenic plants of the invention can display any of  
20   various idiotypic modifications in response to an abiotic stress, including altered tolerance to the stress condition, as well as increased or decreased plant growth, root growth, yield, or the like, as compared to the corresponding wild-type plant.

          The term "plant" is used broadly herein to include any plant at any stage of development, or to part of a plant, including a plant cutting, a plant cell, a plant cell  
25   culture, a plant organ, a plant seed, and a plantlet. A plant cell is the structural and physiological unit of the plant, comprising a protoplast and a cell wall. A plant cell can be in the form of an isolated single cell or a cultured cell, or can be part of higher organized unit, for example, a plant tissue, plant organ, or plant. Thus, a plant cell can be a protoplast, a gamete producing cell, or a cell or collection of cells that can  
30   regenerate into a whole plant. As such, a seed, which comprises multiple plant cells and is capable of regenerating into a whole plant, is considered plant cell for purposes of this disclosure. A plant tissue or plant organ can be a seed, protoplast, callus, or

any other groups of plant cells that is organized into a structural or functional unit. Particularly useful parts of a plant include harvestable parts and parts useful for propagation of progeny plants. A harvestable part of a plant can be any useful part of a plant, for example, flowers, pollen, seedlings, tubers, leaves, stems, fruit, seeds,  
5 roots, and the like. A part of a plant useful for propagation includes, for example, seeds, fruits, cuttings, seedlings, tubers, rootstocks, and the like.

A transgenic plant can be regenerated from a transformed plant cell. As used herein, the term "regenerate" means growing a whole plant from a plant cell; a group of plant cells; a protoplast; a seed; or a piece of a plant such as a callus or tissue.  
10 Regeneration from protoplasts varies from species to species of plants. For example, a suspension of protoplasts can be made and, in certain species, embryo formation can be induced from the protoplast suspension, to the stage of ripening and germination. The culture media generally contains various components necessary for growth and regeneration, including, for example, hormones such as auxins and cytokinins; and  
15 amino acids such as glutamic acid and proline, depending on the particular plant species. Efficient regeneration will depend, in part, on the medium, the genotype, and the history of the culture. If these variables are controlled, however, regeneration is reproducible.

Regeneration can occur from plant callus, explants, organs or plant parts.  
20 Transformation can be performed in the context of organ or plant part regeneration. (see Meth. Enzymol. Vol. 118; Klee et al. Ann. Rev. Plant Physiol. 38:467, 1987, which is incorporated herein by reference). Utilizing the leaf disk-transformation-regeneration method, for example, disks are cultured on selective media, followed by shoot formation in about two to four weeks (see Horsch et al., *supra*, 1985). Shoots  
25 that develop are excised from calli and transplanted to appropriate root-inducing selective medium. Rooted plantlets are transplanted to soil as soon as possible after roots appear. The plantlets can be repotted as required, until reaching maturity.

In vegetatively propagated crops, the mature transgenic plants are propagated utilizing cuttings or tissue culture techniques to produce multiple identical plants.  
30 Selection of desirable transgenotes is made and new varieties are obtained and propagated vegetatively for commercial use. In seed propagated crops, the mature transgenic plants can be self crossed to produce a homozygous inbred plant. The

resulting inbred plant produces seeds that contain the introduced plant stress-induced regulatory element, and can be grown to produce plants that express a polynucleotide or polypeptide in response to a stress condition that induces expression from the regulatory element. As such, the invention further provides seeds produced by a  
5 transgenic plant obtained by a method of the invention.

In addition, transgenic plants comprising different recombinant sequences can be crossbred, thereby providing a means to obtain transgenic plants containing two or more different transgenes, each of which contributes a desirable characteristic to the plant. Methods for breeding plants and selecting for crossbred plants having desirable  
10 characteristics or other characteristics of interest are well known in the art.

A method of the invention can be performed by introducing a polynucleotide portion of a plant stress-regulated gene into the plant. As used herein, the term "introducing" means transferring a polynucleotide into a plant cell. A polynucleotide can be introduced into a cell by a variety of methods well known to those of ordinary  
15 skill in the art. For example, the polynucleotide can be introduced into a plant cell using a direct gene transfer method such as electroporation or microprojectile mediated transformation, or using *Agrobacterium* mediated transformation. Non-limiting examples of methods for the introduction of polynucleotides into plants are provided in greater detail herein. As used herein, the term "transformed" refers to a  
20 plant cell containing an exogenously introduced polynucleotide portion of a plant stress-regulated gene that is or can be rendered active in a plant cell, or to a plant comprising a plant cell containing such a polynucleotide.

It should be recognized that one or more polynucleotides, which are the same or different can be introduced into a plant, thereby providing a means to obtain a  
25 genetically modified plant containing multiple copies of a single transgenic sequence, or containing two or more different transgenic sequences, either or both of which can be present in multiple copies. Such transgenic plants can be produced, for example, by simply selecting plants having multiple copies of a single type of transgenic sequence; by cotransfecting plant cells with two or more populations of different  
30 transgenic sequences and identifying those containing the two or more different transgenic sequences; or by crossbreeding transgenic plants, each of which contains

one or more desired transgenic sequences, and identifying those progeny having the desired sequences.

Methods for introducing a polynucleotide into a plant cell to obtain a transformed plant also include direct gene transfer (see European Patent A 164 575),  
5 injection, electroporation, biolistic methods such as particle bombardment, pollen-mediated transformation, plant RNA virus-mediated transformation, liposome-mediated transformation, transformation using wounded or enzyme-degraded immature embryos, or wounded or enzyme-degraded embryogenic callus, and the like. Transformation methods using *Agrobacterium tumefaciens* tumor inducing (Ti)  
10 plasmids or root-inducing (Ri) plasmids, or plant virus vectors are well known in the art (see, for example, WO 99/47552; Weissbach & Weissbach, "Methods for Plant Molecular Biology" (Academic Press, NY 1988), section VIII, pages 421-463; Grierson and Corey, "Plant Molecular Biology" 2d Ed. (Blackie, London 1988), Chapters 7-9, each of which is incorporated herein by reference; Horsch et al., *supra*,  
15 1985). The wild-type form of *Agrobacterium*, for example, contains a Ti plasmid, which directs production of tumorigenic crown gall growth on host plants. Transfer of the tumor inducing T-DNA region of the Ti plasmid to a plant genome requires the Ti plasmid-encoded virulence genes as well as T-DNA borders, which are a set of direct DNA repeats that delineate the region to be transferred. An *Agrobacterium*  
20 based vector is a modified form of a Ti plasmid, in which the tumor inducing functions are replaced by a nucleotide sequence of interest that is to be introduced into the plant host.

Methods of using *Agrobacterium* mediated transformation include cocultivation of *Agrobacterium* with cultured isolated protoplasts; transformation of  
25 plant cells or tissues with *Agrobacterium*; and transformation of seeds, apices or meristems with *Agrobacterium*. In addition, *in planta* transformation by *Agrobacterium* can be performed using vacuum infiltration of a suspension of *Agrobacterium* cells (Bechtold et al., C.R. Acad. Sci. Paris 316:1194, 1993, which is incorporated herein by reference).

30 *Agrobacterium* mediated transformation can employ cointegrate vectors or binary vector systems, in which the components of the Ti plasmid are divided between a helper vector, which resides permanently in the *Agrobacterium* host and carries the

virulence genes, and a shuttle vector, which contains the gene of interest bounded by T-DNA sequences. Binary vectors are well known in the art (see, for example, De Framond, BioTechnology 1:262, 1983; Hoekema et al., Nature 303:179, 1983, each of which is incorporated herein by reference) and are commercially available (Clontech; Palo Alto CA). For transformation, *Agrobacterium* can be cocultured, for example, with plant cells or wounded tissue such as leaf tissue, root explants, hypocotyledons, stem pieces or tubers (see, for example, Glick and Thompson, "Methods in Plant Molecular Biology and Biotechnology" (Boca Raton FL, CRC Press 1993), which is incorporated herein by reference). Wounded cells within the plant tissue that have been infected by *Agrobacterium* can develop organs *de novo* when cultured under the appropriate conditions; the resulting transgenic shoots eventually give rise to transgenic plants, which contain an exogenous polynucleotide portion of a plant stress-regulated gene.

*Agrobacterium* mediated transformation has been used to produce a variety of transgenic plants, including, for example, transgenic cruciferous plants such as *Arabidopsis*, mustard, rapeseed and flax; transgenic leguminous plants such as alfalfa, pea, soybean, trefoil and white clover; and transgenic solanaceous plants such as eggplant, petunia, potato, tobacco and tomato (see, for example, Wang et al., "Transformation of Plants and Soil Microorganisms" (Cambridge, University Press 1995), which is incorporated herein by reference). In addition, *Agrobacterium* mediated transformation can be used to introduce an exogenous polynucleotide sequence, for example, a plant stress-regulated regulatory element into apple, aspen, belladonna, black currant, carrot, celery, cotton, cucumber, grape, horseradish, lettuce, morning glory, muskmelon, neem, poplar, strawberry, sugar beet, sunflower, walnut, asparagus, rice and other plants (see, for example, Glick and Thompson, *supra*, 1993; Hiei et al., Plant J. 6:271-282, 1994; Shimamoto, Science 270:1772-1773, 1995).

Suitable strains of *Agrobacterium tumefaciens* and vectors as well as transformation of *Agrobacteria* and appropriate growth and selection media are well known in the art (GV3101, pMK90RK), Koncz, Mol. Gen. Genet. 204:383-396, 1986; (C58C1, pGV3850kan), Deblaere, Nucl. Acid Res. 13:4777, 1985; Bevan, Nucl. Acid Res. 12:8711, 1984; Koncz, Proc. Natl. Acad. Sci. USA 86:8467-8471, 1986; Koncz, Plant Mol. Biol. 20:963-976, 1992; Koncz, Specialized vectors for gene tagging and

expression studies. In: Plant Molecular Biology Manual Vol. 2, Gelvin and Schilperoort (Eds.), Dordrecht, The Netherlands: Kluwer Academic Publ. (1994), 1-22; European Patent A-1 20 516; Hoekema: The Binary Plant Vector System, Offsetdrukkerij Kanters B. V., Alblasserdam (1985), Chapter V; Fraley, Crit. Rev. Plant. Sci., 4:1-46; An, EMBO J. 4:277-287, 1985).

Where a polynucleotide portion of a plant stress-regulated gene is contained in vector, the vector can contain functional elements, for example "left border" and "right border" sequences of the T-DNA of *Agrobacterium*, which allow for stable integration into a plant genome. Furthermore, methods and vectors that permit the generation of marker-free transgenic plants, for example, where a selectable marker gene is lost at a certain stage of plant development or plant breeding, are known, and include, for example, methods of co-transformation (Lyznik, Plant Mol. Biol. 13:151-161, 1989; Peng, Plant Mol. Biol. 27:91-104, 1995), or methods that utilize enzymes capable of promoting homologous recombination in plants (see, e.g., W097/08331; Bayley, Plant Mol. Biol. 18:353-361, 1992; Lloyd, Mol. Gen. Genet. 242:653-657, 1994; Maeser, Mol. Gen. Genet. 230:170-176, 1991; Onouchi, Nucl. Acids Res. 19:6373-6378, 1991; see, also, Sambrook et al., *supra*, 1989).

A direct gene transfer method such as electroporation also can be used to introduce a polynucleotide portion of a plant stress-regulated gene into a cell such as a plant cell. For example, plant protoplasts can be electroporated in the presence of the regulatory element, which can be in a vector (Fromm et al., Proc. Natl. Acad. Sci., USA 82:5824, 1985, which is incorporated herein by reference). Electrical impulses of high field strength reversibly permeabilize membranes allowing the introduction of the nucleic acid. Electroporated plant protoplasts reform the cell wall, divide and form a plant callus. Microinjection can be performed as described in Potrykus and Spangenberg (eds.), *Gene Transfer To Plants* (Springer Verlag, Berlin, NY 1995). A transformed plant cell containing the introduced polynucleotide can be identified by detecting a phenotype due to the introduced polynucleotide, for example, increased or decreased tolerance to a stress condition.

Microprojectile mediated transformation also can be used to introduce a polynucleotide into a plant cell (Klein et al., Nature 327:70-73, 1987, which is incorporated herein by reference). This method utilizes microprojectiles such as gold

or tungsten, which are coated with the desired nucleic acid molecule by precipitation with calcium chloride, spermidine or polyethylene glycol. The microprojectile particles are accelerated at high speed into a plant tissue using a device such as the BIOLISTIC PD-1000 (BioRad; Hercules CA).

5           Microprojectile mediated delivery ("particle bombardment") is especially useful to transform plant cells that are difficult to transform or regenerate using other methods. Methods for the transformation using biolistic methods are well known (Wan, Plant Physiol. 104:37-48, 1984; Vasil, Bio/Technology 11:1553-1558, 1993; Christou, Trends in Plant Science 1:423-431, 1996). Microprojectile mediated  
10 transformation has been used, for example, to generate a variety of transgenic plant species, including cotton, tobacco, corn, hybrid poplar and papaya (see Glick and Thompson, *supra*, 1993). Important cereal crops such as wheat, oat, barley, sorghum and rice also have been transformed using microprojectile mediated delivery (Duan et al., Nature Biotech. 14:494-498, 1996; Shimamoto, Curr. Opin. Biotech. 5:158-162,  
15 1994). A rapid transformation regeneration system for the production of transgenic plants such as a system that produces transgenic wheat in two to three months (see European Patent No. EP 0709462A2, which is incorporated herein by reference) also can be useful for producing a transgenic plant using a method of the invention, thus allowing more rapid identification of gene functions. The transformation of most  
20 dicotyledonous plants is possible with the methods described above. Transformation of monocotyledonous plants also can be transformed using, for example, biolistic methods as described above, protoplast transformation, electroporation of partially permeabilized cells, introduction of DNA using glass fibers, *Agrobacterium* mediated transformation, and the like.

25           Plastid transformation also can be used to introduce a polynucleotide portion of a plant stress-regulated gene into a plant cell (U.S. Patent Nos. 5,451,513, 5,545,817, and 5,545,818; WO 95/16783; McBride et al., Proc. Natl. Acad. Sci., USA 91:7301-7305, 1994). Chloroplast transformation involves introducing regions of cloned plastid DNA flanking a desired nucleotide sequence, for example, a selectable  
30 marker together with polynucleotide of interest into a suitable target tissue, using, for example, a biolistic or protoplast transformation method (e.g., calcium chloride or PEG mediated transformation). One to 1.5 kb flanking regions ("targeting

sequences") facilitate homologous recombination with the plastid genome, and allow the replacement or modification of specific regions of the plastome. Using this method, point mutations in the chloroplast 16S rRNA and rps12 genes, which confer resistance to spectinomycin and streptomycin, can be utilized as selectable markers

5 for transformation (Svab et al., Proc. Natl. Acad. Sci., USA 87:8526-8530, 1990; Staub and Maliga, Plant Cell 4:39-45, 1992), resulted in stable homoplasmic transformants; at a frequency of approximately one per 100 bombardments of target leaves. The presence of cloning sites between these markers allowed creation of a plastid targeting vector for introduction of foreign genes (Staub and Maliga, EMBO J.

10 12:601-606, 1993). Substantial increases in transformation frequency are obtained by replacement of the recessive rRNA or r-protein antibiotic resistance genes with a dominant selectable marker, the bacterial aadA gene encoding the spectinomycin-detoxifying enzyme aminoglycoside-3'-adenyltransferase (Svab and Maliga, Proc. Natl. Acad. Sci., USA 90:913-917, 1993). Approximately 15 to 20 cell division

15 cycles following transformation are generally required to reach a homoplastidic state. Plastid expression, in which genes are inserted by homologous recombination into all of the several thousand copies of the circular plastid genome present in each plant cell, takes advantage of the enormous copy number advantage over nuclear-expressed genes to permit expression levels that can readily exceed 10% of the total soluble

20 plant protein.

Plants suitable to treatment according to a method of the invention can be monocots or dicots and include, but are not limited to, corn (*Zea mays*), *Brassica* sp. (e.g., *B. napus*, *B. rapa*, *B. juncea*), particularly those *Brassica* species useful as sources of seed oil, alfalfa (*Medicago sativa*), rice (*Oryza sativa*), rye (*Secale*

25 *cereale*), sorghum (*Sorghum bicolor*, *Sorghum vulgare*), millet (e.g., pearl millet (*Pennisetum glaucum*), proso millet (*Panicum miliaceum*), foxtail millet (*Setaria italica*), finger millet (*Eleusine coracana*)), sunflower (*Helianthus annuus*), safflower (*Carthamus tinctorius*), wheat (*Triticum aestivum*), soybean (*Glycine max*), tobacco (*Nicotiana tabacum*), potato (*Solanum tuberosum*), peanuts (*Arachis hypogaea*),

30 cotton (*Gossypium barbadense*, *Gossypium hirsutum*), sweet potato (*Ipomoea batatas*), cassava (*Manihot esculenta*), coffee (*Cofea* spp.), coconut (*Cocos nucifera*), pineapple (*Ananas comosus*), citrus trees (*Citrus* spp.), cocoa (*Theobroma cacao*), tea



(*Camellia sinensis*), banana (*Musa* spp.), avocado (*Persea utilane*), fig (*Ficus casica*), guava (*Psidium guajava*), mango (*Mangifera indica*), olive (*Olea europaea*), papaya (*Carica papaya*), cashew (*Anacardium occidentale*), macadamia (*Macadamia integrifolia*), almond (*Prunus amygdalus*), sugar beets (*Beta vulgaris*), sugarcane  
5 (*Saccharum* spp.), oats, duckweed (*Lemna*), barley, tomatoes (*Lycopersicon esculentum*), lettuce (e.g., *Lactuca sativa*), green beans (*Phaseolus vulgaris*), lima beans (*Phaseolus limensis*), peas (*Lathyrus* spp.), and members of the genus *Cucumis* such as cucumber (*C. sativus*), cantaloupe (*C. cantalupensis*), and musk melon (*C. melo*).

10 Ornamentals such as azalea (*Rhododendron* spp.), hydrangea (*Macrophylla hydrangea*), hibiscus (*Hibiscus rosasanensis*), roses (*Rosa* spp.), tulips (*Tulipa* spp.), daffodils (*Narcissus* spp.), petunias (*Petunia hybrida*), carnation (*Dianthus caryophyllus*), poinsettia (*Euphorbia pulcherrima*), and chrysanthemum are also included. Additional ornamentals within the scope of the invention include impatiens,  
15 Begonia, Pelargonium, Viola, Cyclamen, Verbena, Vinca, Tagetes, Primula, Saint Paulia, Agertum, Amaranthus, Antihirrhinum, Aquilegia, Cineraria, Clover, Cosmo, Cowpea, Dahlia, Datura, Delphinium, Gerbera, Gladiolus, Gloxinia, Hippeastrum, Mesembryanthemum, Salpiglossos, and Zinnia.

Conifers that may be employed in practicing the present invention include, for  
20 example, pines such as loblolly pine (*Pinus taeda*), slash pine (*Pinus elliotii*), ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), and Monterey pine (*Pinus radiata*), Douglas-fir (*Pseudotsuga menziesii*); Western hemlock (*Tsuga utilane*); Sitka spruce (*Picea glauca*); redwood (*Sequoia sempervirens*); true firs such as silver fir (*Abies amabilis*) and balsam fir (*Abies balsamea*); and cedars such as  
25 Western red cedar (*Thuja plicata*) and Alaska yellow-cedar (*Chamaecyparis nootkatensis*).

Leguminous plants which may be used in the practice of the present invention include beans and peas. Beans include guar, locust bean, fenugreek, soybean, garden beans, cowpea, mungbean, lima bean, fava bean, lentils, chickpea, etc. Legumes  
30 include, but are not limited to, *Arachis*, e.g., peanuts, *Vicia*, e.g., crown vetch, hairy vetch, adzuki bean, mung bean, and chickpea, *Lupinus*, e.g., lupine, trifolium, *Phaseolus*, e.g., common bean and lima bean, *Pisum*, e.g., field bean, *Melilotus*, e.g.,

clover, *Medicago*, e.g., alfalfa, Lotus, e.g., trefoil, lens, e.g., lentil, and false indigo. Preferred forage and turf grass for use in the methods of the invention include alfalfa, orchard grass, tall fescue, perennial ryegrass, creeping bent grass, and redtop. Other plants within the scope of the invention include *Acacia*, aneth, artichoke, 5 arugula, blackberry, canola, cilantro, clementines, escarole, eucalyptus, fennel, grapefruit, honey dew, jicama, kiwifruit, lemon, lime, mushroom, nut, okra, orange, parsley, persimmon, plantain, pomegranate, poplar, radiata pine, radicchio, Southern pine, sweetgum, tangerine, triticale, vine, yams, apple, pear, quince, cherry, apricot, melon, hemp, buckwheat, grape, raspberry, chenopodium, blueberry, nectarine, peach, 10 plum, strawberry, watermelon, eggplant, pepper, cauliflower, Brassica, e.g., broccoli, cabbage, utilan sprouts, onion, carrot, leek, beet, broad bean, celery, radish, pumpkin, endive, gourd, garlic, snapbean, spinach, squash, turnip, utilane, chicory, groundnut and zucchini.

Angiosperms are divided into two broad classes based on the number of 15 cotyledons, which are seed leaves that generally store or absorb food; a monocotyledonous angiosperm has a single cotyledon, and a dicotyledonous angiosperm has two cotyledons. Angiosperms produce a variety of useful products including materials such as lumber, rubber, and paper; fibers such as cotton and linen; herbs and medicines such as quinine and vinblastine; ornamental flowers such as 20 roses and orchids; and foodstuffs such as grains, oils, fruits and vegetables.

Angiosperms encompass a variety of flowering plants, including, for example, cereal plants, leguminous plants, oilseed plants, hardwood trees, fruit-bearing plants and ornamental flowers, which general classes are not necessarily exclusive. Cereal plants, which produce an edible grain cereal, include, for example, corn, rice, wheat, 25 barley, oat, rye, orchardgrass, guinea grass, sorghum and turfgrass. Leguminous plants include members of the pea family (*Fabaceae*) and produce a characteristic fruit known as a legume. Examples of leguminous plants include, for example, soybean, pea, chickpea, moth bean, broad bean, kidney bean, lima bean, lentil, cowpea, dry bean, and peanut, as well as alfalfa, birdsfoot trefoil, clover and sainfoin. 30 Oilseed plants, which have seeds that are useful as a source of oil, include soybean, sunflower, rapeseed (canola) and cottonseed.

Angiosperms also include hardwood trees, which are perennial woody plants that generally have a single stem (trunk). Examples of such trees include alder, ash, aspen, basswood (linden), beech, birch, cherry, cottonwood, elm, eucalyptus, hickory, locust, maple, oak, persimmon, poplar, sycamore, walnut, sequoia, and willow. Trees are useful, for example, as a source of pulp, paper, structural material and fuel.

Angiosperms are fruit-bearing plants that produce a mature, ripened ovary, which generally contains seeds. A fruit can be suitable for human or animal consumption or for collection of seeds to propagate the species. For example, hops are a member of the mulberry family that are prized for their flavoring in malt liquor.

Fruit-bearing angiosperms also include grape, orange, lemon, grapefruit, avocado, date, peach, cherry, olive, plum, coconut, apple and pear trees and blackberry, blueberry, raspberry, strawberry, pineapple, tomato, cucumber and eggplant plants. An ornamental flower is an angiosperm cultivated for its decorative flower. Examples of commercially important ornamental flowers include rose, orchid, lily, tulip and chrysanthemum, snapdragon, camellia, carnation and petunia plants. The skilled artisan will recognize that the methods of the invention can be practiced using these or other angiosperms, as desired, as well as gymnosperms, which do not produce seeds in a fruit.

A method of producing a transgenic plant can be performed by introducing a polynucleotide portion of plant stress-regulated gene into a plant cell genome, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the plant cell to a stress condition, thereby producing a transgenic plant, which comprises plant cells that exhibit altered responsiveness to the stress condition. In one embodiment, the polynucleotide portion of the plant stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof, wherein expression of the stress-regulated polypeptide or functional peptide portion thereof either increases the stress tolerance of the transgenic plant, or decreases the stress tolerance of the transgenic plant. The polynucleotide portion of the plant stress-regulated gene encoding the stress-regulated polypeptide or functional peptide portion thereof can be operatively linked to a heterologous promoter.

In another embodiment, the polynucleotide portion of the plant stress-regulated gene comprises a stress-regulated regulatory element. The stress-regulated

regulatory element can integrate into the plant cell genome in a site-specific manner, whereupon it can be operatively linked to an endogenous nucleotide sequence, which can be expressed in response to a stress condition specific for the regulatory element; or can be a mutant regulatory element, which is not responsive to the stress condition, whereby upon integrating into the plant cell genome, the mutant regulatory element disrupts an endogenous stress-regulated regulatory element of a plant stress-regulated gene, thereby altering the responsiveness of the plant stress-regulated gene to the stress condition. Accordingly, the invention also provides genetically modified plants, including transgenic plants, produced by such a method, and a plant cell obtained from such genetically modified plant, wherein said plant cell exhibits altered responsiveness to the stress condition; a seed produced by a transgenic plant; and a cDNA library prepared from a transgenic plant.

Also provided is a method of modulating the responsiveness of a plant cell to a stress condition. Such a method can be performed, for example, by introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, thereby modulating the responsiveness of the plant cell to a stress condition. As disclosed herein, the responsiveness of the plant cell can be increased or decreased upon exposure to the stress condition, and the altered responsiveness can result in increased or decreased tolerance of the plant cell to a stress condition. The polynucleotide portion of the plant stress-regulated gene can, but need not, be integrated into the genome of the plant cell, thereby modulating the responsiveness of the plant cell to the stress condition. Accordingly, the invention also provide a genetically modified plant, including a transgenic plant, which contains an introduced polynucleotide portion of a plant stress-regulated gene, as well as plant cells, tissues, and the like, which exhibit modulated responsiveness to a stress condition.

The polynucleotide portion of the plant stress-regulated gene can encode a stress-regulated polypeptide or functional peptide portion thereof, which can be operatively linked to a heterologous promoter. As used herein, reference to a "functional peptide portion of a plant stress-regulated polypeptide" means a contiguous amino acid sequence of the polypeptide that has an activity of the full length polypeptide, or that has an antagonist activity with respect to the full length polypeptide, or that presents an epitope unique to the polypeptide. Thus, by

expressing a functional peptide portion of a plant stress-regulated polypeptide in a plant cell, the peptide can act as an agonist or an antagonist of the polypeptide, thereby modulating the responsiveness of the plant cell to a stress condition.

A polynucleotide portion of the plant stress-regulated nucleotide sequence also  
5 can contain a mutation, whereby upon integrating into the plant cell genome, the polynucleotide disrupts (knocks-out) an endogenous plant stress-regulated nucleotide sequence, thereby modulating the responsiveness of said plant cell to the stress condition. Depending on whether the knocked-out gene encodes an adaptive or a maladaptive stress-regulated polypeptide, the responsiveness of the plant will be  
10 modulated accordingly. Thus, a method of the invention provides a means of producing a transgenic plant having a knock-out phenotype of a plant stress-regulated nucleotide sequence.

Alternatively, the responsiveness of a plant or plant cell to a stress condition can be modulated by use of a suppressor construct containing dominant negative  
15 mutation for any of the stress-regulated sequences described herein. Expression of a suppressor construct containing a dominant mutant mutation generates a mutant transcript that, when coexpressed with the wild-type transcript inhibits the action of the wild-type transcript. Methods for the design and use of dominant negative constructs are well known (see, for example, in Herskowitz, Nature 329:219-222,  
20 1987; Lagna and Hemmati-Brivanlou, Curr. Topics Devel. Biol. 36:75-98, 1998).

The polynucleotide portion of the plant stress-regulated gene also can comprise a stress-regulated regulatory element, which can be operatively linked to a heterologous nucleotide sequence, which, upon expression from the regulatory element in response to a stress condition, modulates the responsiveness of the plant  
25 cell to the stress condition. Such a heterologous nucleotide sequence can encode, for example, a stress-inducible transcription factor such as DREB1A, which, upon exposure to the stress condition, is expressed such that it can amplify the stress response (see Kasuga et al., *supra*, 1999). The heterologous nucleotide sequence also can encode a polynucleotide that is specific for a plant stress-regulated gene, for  
30 example, an antisense molecule, a ribozyme, and a triplexing agent, either of which, upon expression in the plant cell, reduces or inhibits expression of a stress-regulated polypeptide encoded by the gene, thereby modulating the responsiveness of the plant

cell to a stress condition, for example, an abnormal level of cold, osmotic pressure, and salinity. As used herein, the term "abnormal," when used in reference to a condition such as temperature, osmotic pressure, salinity, or any other condition that can be a stress condition, means that the condition varies sufficiently from a range  
5 generally considered optimum for growth of a plant that the condition results in an induction of a stress response in a plant. Methods of determining whether a stress response has been induced in a plant are disclosed herein or otherwise known in the art.

A plant stress-regulated regulatory element can be operatively linked to a  
10 heterologous polynucleotide sequence, such that the regulatory element can be introduced into a plant genome in a site-specific matter by homologous recombination. For example, a mutant plant stress-regulated regulatory element for a maladaptive stress-induced polypeptide can be transformed into a plant genome in a site specific manner by *in vivo* mutagenesis, using a hybrid RNA-DNA oligonucleotide  
15 ("chimeroplast" (TIBTECH 15:441- 447, 1997; WO 95/15972; Kren, Hepatology 25:1462-1468, 1997; Cole-Strauss, Science 273:1386-1389, 1996, each of which is incorporated herein by reference). Part of the DNA component of the RNA-DNA oligonucleotide is homologous to a nucleotide sequence comprising the regulatory element of the maladaptive gene, but includes a mutation or contains a heterologous  
20 region which is surrounded by the homologous regions. By means of base pairing of the homologous regions of the RNA-DNA oligonucleotide and of the endogenous nucleic acid molecule, followed by a homologous recombination the mutation contained in the DNA component of the RNA-DNA oligonucleotide or the heterologous region can be transferred to the plant genome, resulting in a "mutant"  
25 gene that, for example, is not induced in response to a stress and, therefore, does not confer the maladaptive phenotype. Such a method similarly can be used to knock-out the activity of a stress-regulated gene, for example, in an undesirable plant. Such a method can provide the advantage that a desirable wild-type plant need not compete with the undesirable plant, for example, for light, nutrients, or the like.

30 A method of modulating the responsiveness of a plant cell to a stress condition also can be performed by introducing a mutation in the chromosomal copy of a plant stress-regulated gene, for example, in the stress-regulated regulatory element, by

transforming a cell with a chimeric oligonucleotide composed of a contiguous stretch of RNA and DNA residues in a duplex conformation with double hairpin caps on the ends. An additional feature of the oligonucleotide is the presence of 2'-O- methylation at the RNA residues. The RNA/DNA sequence is designed to align with the sequence of a chromosomal copy of the target regulatory element and to contain the desired nucleotide change (see U.S. Pat. No. 5,501,967, which is incorporated herein by reference).

A plant stress-regulated regulatory element also can be operatively linked to a heterologous polynucleotide such that, upon expression from the regulatory element in the plant cell, confers a desirable phenotype on the plant cell. For example, the heterologous polynucleotide can encode an aptamer, which can bind to a stress-induced polypeptide. Aptamers are nucleic acid molecules that are selected based on their ability to bind to and inhibit the activity of a protein or metabolite. Aptamers can be obtained by the SELEX (Systematic Evolution of Ligands by Exponential Enrichment) method (see U.S. Pat. No. 5,270,163), wherein a candidate mixture of single stranded nucleic acids having regions of randomized sequence is contacted with a target, and those nucleic acids having a specific affinity to the target are partitioned from the remainder of the candidate mixture, and amplified to yield a ligand enriched mixture. After several iterations a nucleic acid molecule (aptamer) having optimal affinity for the target is obtained. For example, such a nucleic acid molecule can be operatively linked to a plant stress-regulated regulatory element and introduced into a plant. Where the aptamer is selected for binding to a polypeptide that normally is expressed from the regulatory element and is involved in an adaptive response of the plant to a stress, the recombinant molecule comprising the aptamer can be useful for inhibiting the activity of the stress-regulated polypeptide, thereby decreasing the tolerance of the plant to the stress condition.

The invention provides a genetically modified plant, which can be a transgenic plant, that is tolerant or resistant to a stress condition. As used herein, the term "tolerant" or "resistant," when used in reference to a stress condition of a plant, means that the particular plant, when exposed to a stress condition, shows less of an effect, or no effect, in response to the condition as compared to a corresponding reference plant (naturally occurring wild-type plant or a plant not containing a construct of the

present invention). As a consequence, a plant encompassed within the present invention grows better under more widely varying conditions, has higher yields and/or produces more seeds. Thus, a transgenic plant produced according to a method of the invention can demonstrate protection (as compared to a corresponding reference plant) from a delay to complete inhibition of alteration in cellular metabolism, or reduced cell growth or cell death caused by the stress. Preferably, the transgenic plant is capable of substantially normal growth under environmental conditions where the corresponding reference plant shows reduced growth, metabolism or viability, or increased male or female sterility.

10       The determination that a plant modified according to a method of the invention has increased resistance to a stress-inducing condition can be made by comparing the treated plant with a control (reference) plant using well known methods. For example, a plant having increased tolerance to saline stress can be identified by growing the plant on a medium such as soil, which contains a higher  
15       content of salt in the order of at least about 10% compared to a medium the corresponding reference plant is capable of growing on. Advantageously, a plant treated according to a method of the invention can grow on a medium or soil containing at least about 50%, or more than about 75%, particularly at least about more than 100%, and preferably more than about 200% salt than the medium or soil  
20       on which a corresponding reference plant can grow. In particular, such a treated plant can grow on medium or soil containing at least 40 mM, generally at least 100 mM, particularly at least 200 mM, and preferably at least 300 mM salt, including, for example, a water soluble inorganic salt such as sodium sulfate, magnesium sulfate, calcium sulfate, sodium chloride, magnesium chloride, calcium chloride, potassium  
25       chloride, or the like; salts of agricultural fertilizers, and salts associated with alkaline or acid soil conditions; particularly NaCl.

      In another embodiment, the invention provides a plant that is less tolerant or less resistant to a stress condition as compared to a corresponding reference plant. As used herein, the term "less tolerant" or "less resistant," when used in reference to a  
30       stress condition of a plant, means that the particular plant, when exposed to a stress condition, shows an alteration in response to the condition as compared to a corresponding reference plant. As a consequence, such a plant, which generally is an



undesirable plant species, is less likely to grow when exposed to a stress condition than an untreated plant.

The present invention also relates to a method of expressing a heterologous nucleotide sequence in a plant cell. Such a method can be performed, for example, by  
5 introducing into the plant cell a plant stress-regulated regulatory element operatively linked to the heterologous nucleotide sequence, whereby, upon exposure of the plant cell to stress condition, the heterologous nucleotide sequence is expressed in the plant cell. The heterologous nucleotide sequence can encode a selectable marker, or preferably, a polypeptide that confers a desirable trait upon the plant cell, for example,  
10 a polypeptide that improves the nutritional value, digestibility or ornamental value of the plant cell, or a plant comprising the plant cell. Accordingly, the invention provides a transgenic plant that, in response to a stress condition, can produce a heterologous polypeptide from a plant stress-regulated regulatory element. Such transgenic plants can provide the advantage that, when grown in a cold environment for example, expression  
15 of the heterologous polypeptide from a plant cold-regulated regulatory element can result in increased nutritional value of the plant.

The present invention further relates to a method of modulating the activity of a biological pathway in a plant cell, wherein the pathway involves a stress-regulated polypeptide. As used herein, reference to a pathway that "involves" a stress-regulated  
20 polypeptide means that the polypeptide is required for normal function of the pathway. For example, plant stress-regulated polypeptides as disclosed herein include those acting as kinases or as transcription factors, which are well known to be involved in signal transduction pathways. As such, a method of the invention provides a means to modulate biological pathways involving plant stress-regulated  
25 polypeptides, for example, by altering the expression of the polypeptides in response to a stress condition. Thus, a method of the invention can be performed, for example, by introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, thereby modulating the activity of the biological pathway.

A method of the invention can be performed with respect to a pathway  
30 involving any of the stress-regulated polypeptides as encoded by a polynucleotide of SEQ ID NOS:1-2703, including for example, a stress-regulated transcription factor, an enzyme, including a kinase, a channel protein (see, for example, Tables 29-31; see,

also, Table 1). Pathways in which the disclosed stress-regulated stress factors are involved can be identified, for example, by searching the Munich Information Center for Protein Sequences (MIPS) *Arabidopsis thaliana* database (MATDB), which is at <http://www.mips.biochem.mpg.de/proj/thal/>.

5       The present invention also relates to a method of identifying a polynucleotide that modulates a stress response in a plant cell. Such a method can be performed, for example, by contacting an array of probes representative of a plant cell genome and nucleic acid molecules expressed in plant cell exposed to the stress; detecting a nucleic acid molecule that is expressed at a level different from a level of expression  
10 in the absence of the stress; introducing the nucleic acid molecule that is expressed differently into a plant cell; and detecting a modulated response of the plant cell containing the introduced nucleic acid molecule to a stress, thereby identifying a polynucleotide that modulates a stress response in a plant cell. The contacting is under conditions that allow for selective hybridization of a nucleic acid molecule with  
15 probe having sufficient complementarity, for example, under stringent hybridization conditions.

As used herein, the term "array of probes representative of a plant cell genome" means an organized group of oligonucleotide probes that are linked to a solid support, for example, a microchip or a glass slide, wherein the probes can  
20 hybridize specifically and selectively to nucleic acid molecules expressed in a plant cell. Such an array is exemplified herein by a GeneChip® *Arabidopsis* Genome Array (Affymetrix; see Example 1). In general, an array of probes that is "representative" of a plant genome will identify at least about 30% or the expressed nucleic acid molecules in a plant cell, generally at least about 50% or 70%, particularly at least  
25 about 80% or 90%, and preferably will identify all of the expressed nucleic acid molecules. It should be recognized that the greater the representation, the more likely all nucleotide sequences of cluster of stress-regulated genes will be identified.

A method of the invention is exemplified in Example 1, wherein clusters of *Arabidopsis* genes induced to cold, to increased salinity, to increased osmotic  
30 pressure, and to a combination of the above three stress conditions were identified. Based on the present disclosure, the artisan readily can obtain nucleic acid samples for *Arabidopsis* plants exposed to other stress conditions, or combinations of stress

conditions, and identify clusters of genes induced in response to the stress conditions. Similarly, the method is readily adaptable to identifying clusters of stress-regulated genes expressed in other plant species, particularly commercially valuable plant species, where a substantial amount of information is known regarding the genome.

5           The clusters of genes identified herein include those clusters of genes that are induced or repressed in response to a combination of stress conditions, but not to any of the stress conditions alone; and clusters of genes that are induced or repressed in response to a selected stress condition, but not to other stress conditions tested. Furthermore, clusters of genes that respond to a stress condition in a temporally  
10 regulated manner are also included, such as gene clusters that are induced early (for example, within about 3 hours), late (for example, after about 8 to 24 hours), or continuously in a stress response. In addition, the genes within a cluster are represented by a variety of cellular proteins, including transcription factors, enzymes such as kinases, channel proteins, and the like (see Tables 1 and 29-31). Thus, the  
15 present invention further characterizes nucleotide sequences that previously were known to encode cellular peptides by classifying them within clusters of stress-regulated genes.

          The present invention additionally relates to a method of identifying a stress condition to which a plant cell was exposed. Such a method can be performed, for  
20 example, by contacting nucleic acid molecules expressed in the plant cell and an array of probes representative of the plant cell genome; and detecting a profile of expressed nucleic acid molecules characteristic of a stress response, thereby identifying the stress condition to which the plant cell was exposed. The contacting generally is under conditions that allow for selective hybridization of a nucleic acid molecule with  
25 probe having sufficient complementarity, for example, under stringent hybridization conditions. The profile can be characteristic of exposure to a single stress condition, for example, an abnormal level of cold, osmotic pressure, or salinity (Tables 3-14), or can be characteristic of exposure to more than one stress condition (Tables 15-26, for example, cold, increased osmotic pressure and increased salinity (see Tables 24-26).

30           The method can be practiced using at least one nucleic acid probe and can identify one or combination of stress conditions by detecting altered expression of one or a plurality of polynucleotides representative of plant stress-regulated genes. As

used herein, the term "at least one" includes one, two, three or more, for example, five, ten, twenty, fifty or more polynucleotides, nucleic acid probes, and the like. The term "plurality" is used herein to mean two or more, for example, three, four, five or more, including ten, twenty, fifty or more polynucleotides, nucleic acid probes, and  
5 the like.

In a method of the invention, nucleic acid samples from the plant cells to be collected can be contacted with an array, then the profile can be compared with known expression profiles prepared from nucleic acid samples of plants exposed to a known stress condition or combination of stress conditions. By creating a panel of  
10 such profiles, representative of various stress conditions, an unknown stress condition to which a plant was exposed can be identified simply by comparing the unknown profile with the known profiles and determining which known profile that matches the unknown profile. Preferably, the comparison is automated. Such a method can be useful, for example, to identify a cause of damage to a crop, where the condition  
15 causing the stress is not known or gradually increases over time. For example, accumulation in soils over time of salts from irrigation water can result in gradually decreasing crop yields. Because the accumulation is gradual, the cause of the decreased yield may not be readily apparent. Using the present methods, it is possible to evaluate the stress to which the plants are exposed, thus revealing the cause of the  
20 decreased yields.

The present invention, therefore includes a computer readable medium containing executable instructions for receiving expression data for sequences substantially similar to any of those disclosed herein and comparing expression data from a test plant to a reference plant that has been exposed to an abiotic stress. Also  
25 provided is a computer-readable medium containing sequence data for sequences substantially similar to any of the sequences described herein, or the complements thereof, and a module for comparing such sequences to other nucleic acid sequences.

Also provided are plants and plant cells comprising plant stress-regulatory elements of the present invention operably linked to a nucleotide sequence encoding a  
30 detectable signal. Such plants can be used as diagnostic or "sentinel" plants to provide early warning that nearby plants are being stressed so that appropriate actions can be taken. In one embodiment, the signal is one that alters the appearance of the

plant. For example, an osmotic stress regulatory element of the present invention can be operably linked to a nucleotide sequence encoding a fluorescent protein such as green fluorescent protein. When subjected to osmotic stress, the expression of the green fluorescent protein in the sentinel plant provides a visible signal so that  
5 appropriate actions can be taken to remove or alleviate the stress. The use of fluorescent proteins in plants is well known (see, for example, in Leffel et al., BioTechniques 23:912, 1997).

The invention further relates to a method of identifying an agent that modulates the activity of a stress-regulated regulatory element of a plant. As used  
10 herein, the term "modulate the activity," when used in reference to a plant stress-regulated regulatory element, means that expression of a polynucleotide from the regulatory element is increased or decreased. In particular, expression can be increased or decreased with respect to the basal activity of the promoter, i.e., the level of expression, if any, in the absence of a stress condition that normally induces  
15 expression from the regulatory element; or can be increased or decreased with respect to the level of expression in the presence of the inducing stress condition. As such, an agent can act as a mimic of a stress condition, or can act to modulate the response to a stress condition.

Such a method can be performed, for example, by contacting the regulatory  
20 element with an agent suspected of having the ability to modulate the activity of the regulatory element, and detecting a change in the activity of the regulatory element. In one embodiment, the regulatory element can be operatively linked to a heterologous polynucleotide encoding a reporter molecule, and an agent that modulates the activity of the stress-regulated regulatory element can be identified by  
25 detecting a change in expression of the reporter molecule due to contacting the regulatory element with the agent. Such a method can be performed *in vitro* in a plant cell-free system, or in a plant cell in culture or in a plant *in situ*.

A method of the invention also can be performed by contacting the agent is contacted with a genetically modified cell or a transgenic plant containing an  
30 introduced plant stress-regulated regulatory element, and an agent that modulates the activity of the regulatory element is identified by detecting a phenotypic change in the modified cell or transgenic plant.

A method of the invention can be performed in the presence or absence of the stress condition to which the particularly regulatory element is responsive. As such, the method can identify an agent that modulates the activity of plant stress-regulated promoter in response to the stress, for example, an agent that can enhance the stress response or can reduce the stress response. In particular, a method of the invention can identify an agent that selectively activates the stress-regulated regulatory elements of a cluster of plant stress-regulated genes, but does not affect the activity of other stress-regulated regulatory genes. As such, the method provides a means to identify an agent that acts as a stress mimic. Such agents can be particularly useful to prepare a plant to an expected stress condition. For example, an agent that acts as a cold mimic can be applied to a field of plants prior to the arrival of an expected cold front. Thus, the cold stress response can be induced prior to the actual cold weather, thereby providing the plants with the protection of the stress response, without the plants suffering from any initial damage due to the cold. Similarly, an osmotic pressure mimic can be applied to a crop of plants prior a field being flooded by a rising river.

In one embodiment, the present invention provides a method for marker-assisted selection. Marker-assisted selection involves the selection of plants having desirable phenotypes based on the presence of particular nucleotide sequences ("markers"). The use of markers allows plants to be selected early in development, often before the phenotype would normally be manifest. Because it allows for early selection, marker-assisted selection decreases the amount of time need for selection and thus allows more rapid genetic progress.

Briefly, marker-assisted selection involves obtaining nucleic acid from a plant to be selected. The nucleic acid obtained is then probed with probes that selectively hybridize under stringent, preferably highly stringent, conditions to a nucleotide sequence or sequences associated with the desired phenotype. In one embodiment, the probes hybridize to any of the stress-responsive genes or regulatory regions disclosed herein, for example, any one of SEQ ID NOS:1-2703. The presence of any hybridization products formed is detected and plants are then selected on the presence or absence of the hybridization products.

The following examples are intended to illustrate but not limit the invention.

**EXAMPLE 1****PROFILING OF PLANT STRESS-REGULATED GENES**

This example demonstrates that clusters of stress-regulated genes can be identified in plant cells exposed to various stress conditions, either alone or in  
5 combination.

A GeneChip® Arabidopsis Genome Array (Affymetrix, Santa Clara, CA) was used to identify clusters of genes that were coordinately induced in response to various stress conditions. The GeneChip® Arabidopsis Genome Array contains probes synthesized *in situ* and is designed to measure temporal and spatial gene  
10 expression of approximately 8700 genes in greater than 100 EST clusters. The sequences used to develop the array were obtained from GenBank (<http://www.ncbi.nlm.nih.gov/>) in collaboration with Torrey Mesa Research Institute (San Diego, CA), formerly known as Novartis Agriculture Discovery Institute. Eighty percent of the nucleotide sequences represented on the array are predicted  
15 coding sequences from genomic BAC entries; twenty percent are high quality cDNA sequences. The array also contains over 100 EST clusters that share homology with the predicted coding sequences from BAC clones (see, for example, world wide web at address (url) "[affymetrix.com/products/Arabidopsis\\_content.html](http://affymetrix.com/products/Arabidopsis_content.html)").

The Affymetrix GeneChip® array was used to define nucleotide sequences/  
20 pathways affected by various abiotic stresses and to define which are uniquely regulated by one stress and those that respond to multiple stress, and to identify candidate nucleotide sequences for screening for insertional mutants. Of the approximately 8,700 nucleotide sequences represented on the Affymetrix GeneChip® array, 2862 nucleotide sequences showed at least a 2-fold change in expression in at  
25 least one sample, relative to no-treatment controls. Of those 2,862 nucleotide sequences 1,335 were regulated only by cold stress, 166 were regulated only mannitol stress and 209 were regulated only by saline stress. Furthermore, of the 2,862 nucleotide sequences 123 nucleotide sequences were regulated by salt and mannitol stress, 293 were regulated by mannitol and cold stress, 274 were regulated  
30 by cold and saline stress and 462 were regulated by cold, mannitol and salt. Of the 2,862 nucleotide sequences, 771 passed the higher stringency of showing at least a

2-fold change in expression in at least 2 samples, relative to control. And, 508 of the 771 nucleotide sequences were found in an in-house collection of insertion mutants.

The following describes in more detail how the experiments were done.

Transcriptional profiling was performed by hybridizing fluorescence labeled cRNA with  
5 the oligonucleotides probes on the chip, washing, and scanning. Each gene is represented on the chip by about sixteen oligonucleotides (25-mers). Expression level is related to fluorescence intensity. Starting material contained 1 to 10 Tg total RNA; detection specificity was about  $1:10^6$ ; approximately a 2-fold change was detectable, with less than 2% false positive; the dynamic range was approximately 500x.  
10 Nucleotide sequences having up to 70% to 80% identity could be discriminated using this system.

Seven day old axenic *Arabidopsis* seedlings were transferred to Magenta boxes with rafts floating on MS medium. Three weeks later (28 day old seedlings), stresses were applied as follows: Control - no treatment; Cold - Magenta box placed in ice;  
15 Mannitol - medium + 200 mM mannitol; Salt - medium + 100 mM NaCl. Tissue samples were collected at 3 hours and 27 hours into the stress, roots and aerial portions were harvested, RNA was purified, and the samples were analyzed using the GeneChip® *Arabidopsis* Genome Array (Affymetrix, Santa Clara, CA) following the manufacturer's protocol.

20 Raw fluorescence values as generated by Affymetrix software were processed as follows: the values were brought into Microsoft Excel and values of 25 or less were set to 25 (an empirically determined baseline, Zhu and Wang, Plant Physiol. 124:1472-1476; 2000). The values from the stressed samples were then converted to fold change relative to control by dividing the values from the stressed samples by the values from  
25 the no-treatment control samples. Expression patterns that were altered at least 2-fold with respect to the control were selected. This method gave very robust results and resulted in a larger number of nucleotide sequences called as stress-regulated than previous methods had permitted.

Based on the profiles obtained following hybridization of nucleic acid molecules  
30 obtained from plant cells exposed to various stress conditions to the probes in the microarray, clusters of nucleotide sequences that were altered in response to the stress



conditions were identified (see Tables 3-6, cold responsive; Tables 7-10, salt (saline) responsive; Tables 11 to 14, mannitol (osmotic) responsive; Tables 15-17, cold and mannitol responsive; Tables 18-20, 6 salt and cold responsive; Tables 21-23, salt and mannitol responsive; Tables 24-26, cold, salt and mannitol responsive. Examples of  
5 plant gene sequences that varied in expression at least two-fold in response to a combination of cold, saline and osmotic stress in root cells and leaf cells are shown in Tables 27 and 28, respectively. In addition, examples of plant gene sequences that encode transcription factors (Table 29), phosphatases (Table 30), and kinases (Table 31) and that varied at least two-fold in response to a combination of cold, saline and osmotic  
10 stress are provided.

Affymetrix ID numbers and corresponding SEQ ID NOS: for the respective *Arabidopsis* nucleotide sequences are provided Tables 3-26, and can be used to determine SEQ ID NOS: for the sequences shown by Affymetrix ID number in Tables 27-31. The Affymetrix ID number refers to a particular nucleotide sequence on  
15 the GeneChip® *Arabidopsis* Genome Array. In some cases, a particular plant stress-regulated gene sequence hybridized to more than one nucleotide sequence on the GeneChip® *Arabidopsis* Genome Array (see, for example, Table 3, where SEQ ID NO:36 is shown to have hybridized to the 12187\_AT and 15920\_I\_AT nucleotide sequences on the GeneChip®). In addition, it should be recognized that the disclosed  
20 sequences are not limited to coding sequences but, in some cases, include 5' untranslated sequences (see Table 2) or a longest coding region. As such, while the sequences set forth as SEQ ID NOS:1-2073 generally start with an ATG codon, in most cases each comprises a longer nucleotide sequence, including a regulatory region (see Table 2).

The results disclosed herein demonstrate that several polynucleotides, some of  
25 which were known to function as transcription factors, enzymes, and structural proteins, also are involved in the response of a plant cell to stress. The identification of the clusters of stress-regulated genes as disclosed herein provides a means to identify stress-regulated regulatory elements present in *Arabidopsis thaliana* nucleotide sequences, including consensus regulatory elements. It should be recognized, however that the  
30 regulatory elements of the plant genes comprising a sequence as set forth in SEQ ID NOS:156, 229, 233, 558, 573, 606, 625, 635, 787, and 813, which previously have

been described as cold regulated genes, are not encompassed within the stress-regulated gene regulatory element of the invention, and the regulatory elements of the plant genes comprising the nucleotide sequences set forth as SEQ ID NOS:1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918, and 1928, which  
5 previously have been identified as genes that are responsive to a single stress condition such as cold or saline stress, are not encompassed within the plant stress-regulated gene regulatory elements of the invention to the extent that they confer stress-regulated expression only with respect to the known single stress. Furthermore, the identification of the *Arabidopsis* stress-regulated genes provides a means to identify  
10 the corresponding homologs and orthologs in other plants, including commercially valuable food crops such as wheat, rice, soy, and barley, and ornamental plants. BLASTN and BLASTP searches to identify such sequences revealed the polynucleotide sequences set forth in Table 32.

Although the invention has been described with reference to the above example,  
15 it will be understood that modifications and variations are encompassed within the spirit and scope of the invention. Accordingly, the invention is limited only by the claims, which follow Tables 1 to 32.

TABLE 1

SEQUENCE DESCRIPTIONS			
Seq ID	Description	Seq ID	Description
1	unknown protein	41	scarecrow-like 7 (SCL7)
2	unknown protein	42	putative protein
3	unknown protein	43	No function assigned by TIGR
4	putative auxin-induced protein	44	unknown protein
5	unknown protein	45	unknown protein
6	hypothetical protein	46	succinyl-CoA-ligase alpha subunit
7	putative protein	47	putative protein
8	unknown protein	48	CLV1 receptor kinase like protein
9	unknown protein	49	putative receptor-like protein kinase
10	unknown protein	50	putative squalene synthase
11	putative protein	51	putative receptor protein kinase
12	Thioredoxin - like protein	52	somatic embryogenesis receptor-like kinase, putative
13	putative RNA helicase	53	putative protein
14	putative protein	54	putative beta-glucosidase
15	putative protein	55	multi-drug resistance protein
16	RING zinc finger protein, putative	56	receptor protein kinase (TMK1), putative
17	putative cyclin	57	putative receptor-like protein kinase
18	putative protein	58	putative pectate lyase
19	putative protein	59	putative protein kinase
20	unknown protein	60	putative peroxidase
21	putative protein	61	cytochrome P450-like protein
22	putative protein	62	putative beta-amylase
23	hypothetical protein	63	monosaccharide transporter STP3
24	unknown protein	64	Lycopersicon esculentum proteinase TMP, Pir2:T07617
25	hypothetical protein	65	putative receptor-like protein kinase
26	unknown protein	66	G-box-binding factor 1
27	unknown protein	67	amino acid carrier, putative
28	unknown protein	68	myb-related protein
29	unknown protein	69	No function assigned by TIGR
30	putative protein	70	SNF1 like protein kinase
31	putative protein	71	Cu/Zn superoxide dismutase-like protein
32	putative protein	72	putative protein kinase
33	unknown protein	73	small nuclear ribonucleoprotein U1A
34	putative ribonuclease III		
35	unknown protein		
36	unknown protein		
37	unknown protein		
38	unknown protein		
39	unknown protein		
40	putative histidine kinase		

TABLE 1 (cont)

74	ras-like GTP-binding protein	101	dynein light chain like protein
75	oleoyl-[acyl-carrier-protein] hydrolase-like protein	102	chaperonin CPN10
76	putative heat shock transcription factor	103	putative bHLH transcription factor
77	putative protein	104	putative glyoxysomal malate dehydrogenase precursor
78	membrane-bound small GTP-binding - like protein	105	ATP-dependent RNA helicase, putative
79	putative protein (fragment)	106	chlorophyll synthetase
80	indole-3-acetate beta-glucosyltransferase like protein	107	similar to epoxide hydrolases
81	HD-zip transcription factor (athb-8)	108	putative protein
82	putative cAMP-dependent protein kinase	109	unknown protein
83	glucuronosyl transferase-like protein	110	hypothetical protein
84	putative leucine-rich repeat disease resistance protein	111	putative membrane transporter
85	98b like protein	112	putative tyrosyl-tRNA synthetase
86	putative receptor-like protein kinase	113	ARGININE/SERINE-RICH SPLICING FACTOR RSP31
87	IAA-Ala hydrolase (IAR3)	114	putative oxidoreductase
88	putative AP2 domain transcription factor	115	unknown protein
89	putative expansin	116	linker histone protein, putative
90	putative Ap2 domain protein	117	hypothetical protein
91	expansin (At-EXP1)	118	putative protein
92	cytochrome P450 - like protein	119	putative mitochondrial carrier protein
93	putative ATP-dependent RNA helicase A	120	putative transcription factor
94	unknown protein	121	MYB-related protein
95	predicted protein	122	myb-related transcription factor, putative
96	putative glucosyltransferase	123	unknown protein
97	unknown protein	124	unknown protein
98	putative xyloglucan-specific glucanase	125	putative glycine-rich protein
99	cysteine synthase	126	No function assigned by TIGR
100	clathrin assembly protein AP19 homolog	127	unknown protein
		128	unknown protein
		129	unknown protein
		130	unknown protein
		131	putative membrane channel protein
		132	putative protein
		133	unknown protein
		134	gamma glutamyl hydrolase, putative
		135	40S ribosomal protein S5
		136	DnaJ-like protein
		137	40S ribosomal protein S26
		138	putative WRKY-type DNA binding protein

TABLE 1 (cont)

139	putative protein	161	putative photomorphogenesis repressor protein
140	hypothetical protein	162	SNF1-like protein kinase (AKin11)
141	putative ubiquitin-conjugating enzyme	163	thioredoxin h
142	peptidylprolyl isomerase	164	thioredoxin
ROC1		165	Ca <sup>2+</sup> -dependent lipid-binding protein, putative
143	glyceraldehyde-3-phosphate dehydrogenase C subunit (GapC)	166	putative auxin-induced protein
144	No function assigned by	167	putative bZIP transcription factor
TIGR		168	hypothetical protein
145	putative protein	169	putative AVR9 elicitor response protein
146	putative thioredoxin	170	putative serine/threonine protein kinase
147	thioredoxin h, putative	171	bZIP transcription factor ATB2
148	thioredoxin-like	172	putative spliceosome associated protein
149	allene oxide synthase (emb CAA73184.1)	173	3-hydroxyisobutyryl-coenzyme A hydrolase - like protein
150	anthranilate synthase component I-1 precursor (sp P32068)	174	putative protein
151	CELL DIVISION CONTROL PROTEIN 2 HOMOLOG A	175	putative Mutator-like transposase
152	protein kinase cdc2	176	putative protein
homolog B		177	unknown protein
153	ethylene responsive element binding factor 1 (frameshift !)	178	putative protein
154	ethylene responsive element binding factor 2 (ATERF2) (sp O80338)	179	putative protein
155	ethylene responsive element binding factor 5 (ATERF5) (sp O80341)	180	putative galactinol synthase
156	glucose-6-phosphate dehydrogenase	181	putative transcriptional regulator
157	photomorphogenesis repressor (COP1)	182	nuclear matrix constituent protein 1 (NMCP1)-like
158	unknown protein	183	putative DNA-binding protein RAV2
159	DNA (cytosine-5)-methyltransferase (DNA methyltransferase) (DNA metase) (sp P34881)	184	No function assigned by TIGR
160	PROLIFERA	185	basic blue protein, 5' partial
		186	unknown protein
		187	putative calcium-binding protein, calreticulin
		188	putative pyrophosphate-fructose-6-phosphate 1-phosphotransferase
		189	ribosomal protein L11, cytosolic
		190	putative dTDP-glucose 4-6-dehydratase
		191	40S ribosomal protein S20-like protein
		192	60S ribosomal protein L24

TABLE 1 (cont)

193	coatomer-like protein, epsilon subunit	223	putative SF16 protein {Helianthus annuus}
194	glycoprotein(EP1), putative	224	unknown protein
195	putative SPL1-related protein	225	thioredoxin
196	unknown protein	226	trehalose-6-phosphate phosphatase (AtTPPB)
197	putative transport protein SEC61 beta-subunit	227	chlorophyll a/b-binding protein
198	unknown protein	228	class IV chitinase (CHIV)
199	putative cytochrome P450	229	chalcone synthase (naringenin-chalcone synthase) (testa 4 protein) (sp P13114)
200	UTP-glucose glucosyltransferase - like protein	230	unknown protein
201	60S ribosomal protein L23	231	cinnamyl-alcohol dehydrogenase ELI3-2
202	40S ribosomal protein S17	232	farnesyl-pyrophosphate synthetase FPS2
203	40S ribosomal protein S26	233	phospholipid hydroperoxide glutathione peroxidase
204	protein translation factor Sui1 homolog, putative	234	heat shock transcription factor HSF4
205	unknown protein	235	heat shock protein 101
206	gamma glutamyl hydrolase, putative	236	17.6 kDa heat shock protein (AA 1-156)
207	dTDP-glucose 4,6-dehydratase, putative	237	heat shock protein 17.6A
208	extensin - like protein	238	heat-shock protein
209	unknown protein	239	HY5
210	protein phosphatase 2C - like protein	240	putative auxin-induced protein, IAA12
211	ubiquitin-like protein	241	early auxin-induced protein, IAA19
212	protein phosphatase 2C-like protein	242	auxin-inducible gene (IAA2)
213	unknown protein	243	putative protein
214	putative RING zinc finger ankyrin protein	244	putative choline kinase
215	unknown protein	245	thymidylate kinase - like protein
216	putative rubisco subunit binding-protein alpha subunit	246	CTP synthase like protein
217	putative acetone-cyanohydrin lyase	247	putative protein
218	putative isoamylase	248	putative amidase
219	putative protein	249	4-alpha-glucanotransferase
220	HSP associated protein like	250	hypothetical protein
221	60S ribosomal protein L39	251	similar to auxin-induced protein
222	unknown protein	252	putative protein
		253	putative protein
		254	putative protein
		255	hyuC-like protein

TABLE 1 (cont)

256	putative tetracycline transporter protein	287	unknown protein
257	similar to early nodulins	288	putative esterase D
258	putative protein	289	predicted protein of unknown function
259	putative peptidyl-prolyl cis-trans isomerase	290	unknown protein
260	unknown protein	291	putative indole-3-glycerol phosphate synthase
261	unknown protein	292	isopentenyl pyrophosphate:dimethylallyl pyrophosphate isomerase
262	putative endochitinase	293	kinase associated protein phosphatase
263	putative ABC transporter	294	putative K <sup>+</sup> channel, beta subunit
264	No function assigned by TIGR	295	KNAT1 homeobox-like protein
265	CONSTANS-like B-box zinc finger protein	296	PSI type II chlorophyll a/b-binding protein, putative
266	unknown protein	297	transcription factor
267	unknown protein	298	putative WD-40 repeat protein, MSI2
268	putative mitochondrial processing peptidase alpha subunit	299	WD-40 repeat protein (MSI3)
269	putative pre-mRNA splicing factor	300	putative WD-40 repeat protein, MSI4
270	putative phosphatidylserine decarboxylase	301	unknown protein
271	unknown protein	302	hypothetical protein
272	unknown protein	303	putative protein
273	unknown protein	304	No function assigned by TIGR
274	putative casein kinase I	305	polyphosphoinositide binding protein, putative
275	unknown protein	306	hypothetical protein
276	60S ribosomal protein L23A	307	unknown protein
277	putative mitochondrial dicarboxylate carrier protein	308	chloroplast ribosomal L1 - like protein
278	enoyl-ACP reductase (enr-A)	309	cold-regulated protein cor15b precursor
279	putative isoamylase	310	cyanohydrin lyase like protein
280	formamidase - like protein	311	putative replication protein A1
281	reticuline oxidase - like protein	312	putative protein
282	unknown protein	313	possible apospory-associated like protein
283	putative transketolase precursor	314	DNA binding protein GT-1, putative
284	putative protein	315	AT-hook DNA-binding protein (AHP1)
285	unknown protein	316	putative phospholipase
286	unknown protein	317	chloroplast FtsH protease, putative

TABLE 1 (cont)

318	enoyl-CoA hydratase like protein	348	putative farnesylated protein
319	berberine bridge enzyme - like protein	349	unknown protein
320	putative sugar transporter	350	water stress-induced protein, putative
321	unknown protein	351	unknown protein
322	No function assigned by TIGR	352	unknown protein
323	hypothetical protein	353	PEROXISOMAL MEMBRANE PROTEIN PMP22
324	putative acidic ribosomal protein	354	putative peroxisomal membrane carrier protein
325	putative protein	355	putative protein
326	unknown protein	356	unknown protein
327	hypothetical protein	357	putative protein
328	putative protein	358	putative protein
329		359	argininosuccinate synthase -like protein
	dihydroxypolyprenylbenzoate methyltransferase	360	1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase
330	unknown protein	361	putative JUN kinase activator protein
331	myb-related protein	362	putative 60S ribosomal protein L35
332	No function assigned by TIGR	363	nucleoid DNA-binding protein cnd41 - like protein
333	putative protein	364	SigA binding protein
334	putative disease resistance response protein	365	hypothetical protein
335	hypothetical protein	366	putative protein kinase
336	No function assigned by TIGR	367	unknown protein
337	starch branching enzyme II	368	regulatory protein NPR1-like; transcription factor inhibitor I kappa B-like
338	No function assigned by TIGR	369	putative protein
339	putative enolase (2-phospho-D-glycerate hydroxylase)	370	hypothetical protein
340	putative protein kinase	371	phosphoribosylanthranilate isomerase
341	HD-Zip protein, putative	372	phosphoribosylanthranilate isomerase
342	putative protein kinase	373	sterol glucosyltransferase, putative
343	phenylalanyl-trna synthetase - like protein	374	putative gigantea protein
344	putative aconitase	375	putative MYB family transcription factor
345	NAM(no apical meristem) protein, putative	376	hypothetical protein
346	unknown protein	377	hypothetical protein
347	putative phosphomannomutase	378	predicted protein
		379	cytochrome P450, putative



TABLE 1 (cont)

380	putative Na <sup>+</sup> dependent ileal bile acid transporter	416	chloroplast precursor (sp Q02166)
381	unknown protein	417	phytochrome C (sp P14714)
382	RING-H2 finger protein RHF1a	418	putative phytochrome-associated protein 3
383	putative protein	419	receptor serine/threonine kinase PR5K
384	unknown protein	420	Ran-binding protein (atranbp1a)
385	putative protein	421	small Ras-like GTP-binding protein (gb AAB58478.1)
386	putative auxin-regulated protein	422	sterol-C5-desaturase
387	hypothetical protein	423	tryptophan synthase beta chain 1 precursor (sp P14671)
388	unknown protein	424	thioredoxin f2 (gb AAD35004.1)
389	unknown protein	425	No function assigned by TIGR
390	putative protein	426	putative WRKY DNA-binding protein
391	putative protein	427	putative protein
392	unknown protein	428	unknown protein
393	histone H1	429	14-3-3 protein homolog RCI1 (pir  S47969)
394	Argonaute (AGO1)-like protein	430	unknown protein
395	unknown protein	431	putative CCCH-type zinc finger protein
396	putative protein with C-terminal RING finger	432	PINHEAD (gb AAD40098.1); translation initiation factor
397	unknown protein	433	plasma membrane proton ATPase (PMA)
398	unknown protein	434	CHLOROPHYLL A-B BINDING PROTEIN 4 PRECURSOR homolog
399	unknown protein	435	membrane related protein CP5, putative
400	unknown protein	436	ABC transporter (AtMRP2)
401	unknown protein	437	putative embryo-abundant protein
402	putative copper amine oxidase	438	putative anthocyanidin-3-glucoside rhamnosyltransferase
403	unknown protein	439	putative lipid transfer protein
404	unknown protein	440	unknown protein
405	unknown protein	441	unknown protein
406	putative protein	442	galactinol synthase, putative
407	putative protein	443	putative protein
408	unknown protein	444	putative protein
409	unknown protein	445	SCARECROW-like protein
410	putative protein	446	unknown protein
411	putative protein		
412	unknown protein		
413	serine/threonine kinase - like protein		
414	alcohol dehydrogenase, putative		
415	anthranilate phosphoribosyltransferase,		

TABLE 1 (cont)

447	unknown protein	476	phosphoenolpyruvate carboxylase (PPC)
448	unknown protein	477	chlorophyll a/b-binding protein - like
449	unknown protein	478	AtAGP4
450	asparagine--tRNA ligase	479	putative cryptochrome 2 apoprotein
451	putative protein	480	type 2 peroxiredoxin, putative
452	glutamate-1-semialdehyde 2,1-aminomutase 1 precursor (GSA 1) (glutamate-1-semialdehyde aminotransferase 1) (GSA-AT 1) (sp P42799)	481	Atpm24.1 glutathione S transferase
453	hypothetical protein	482	delta tonoplast integral protein (delta-TIP)
454	putative serine protease-like protein	483	20S proteasome subunit (PAA2)
455	No function assigned by TIGR	484	dormancy-associated protein, putative
456	unknown protein	485	putative cytidine deaminase
457	unknown protein	486	No function assigned by TIGR
458	gamma-adaptin, putative	487	putative phospholipase D-gamma
459	UDP rhamnose--anthocyanidin-3-glucoside rhamnosyltransferase - like protein	488	cell elongation protein, Dwarf1
460	carbonate dehydratase - like protein	489	germin-like protein
461	putative microtubule-associated protein	490	hevein-like protein precursor (PR-4)
462	putative ribophorin I	491	rac-like GTP binding protein (ARAC5)
463	putative zinc finger protein	492	phosphoprotein phosphatase, type 1 catalytic subunit
464	chloroplast FtsH protease, putative	493	ubiquitin-protein ligase UBC9
465	putative protein	494	xyloglucan endotransglycosylase-related protein XTR-7
466	unknown protein	495	cysteine synthase
467	putative LEA protein	496	putative villin 2
468	putative protein	497	glutathione S-transferase
469	putative protein	498	5-adenylylsulfate reductase
470	unknown protein	499	arginine decarboxylase
471	putative purple acid phosphatase	500	ATHP2, putative
472	unknown protein	501	ornithine carbamoyltransferase precursor
473	putative protein	502	putative protein
474	unknown protein	503	putative protein
475	chlorophyll binding protein, putative	504	unknown protein
		505	putative protein
		506	putative protein
		507	unknown protein
		508	unknown protein
		509	unknown protein
		510	unknown protein
		511	hypothetical protein

TABLE 1 (cont)

512	putative protein	552	putative CCCH-type zinc finger protein
513	putative DnaJ protein	553	MAP kinase kinase 2
514	plastocyanin	554	ethylene-insensitive3-like1 (EIL1)
515	unknown protein	555	histidine transport protein (PTR2-B)
516	unknown protein	556	putative auxin-induced protein AUX2-11
517	unknown protein	557	hydroxyacylglutathione hydrolase cytoplasmic (glyoxalase II) (GLX II)
518	unknown protein	558	delta-8 sphingolipid desaturase
519	unknown protein	559	cellulose synthase catalytic subunit (Ath-A)
520	unknown protein	560	nitrate transporter (NTL1)
521	putative ATP-dependent RNA helicase	561	DNA-binding homeotic protein Athb-2
522	non-race specific disease resistance protein (NDR1)	562	hypothetical protein
523	hypothetical protein	563	aspartate aminotransferase
524	putative protein	564	4-coumarate:CoA ligase 1
525	putative protein	565	pyruvate dehydrogenase E1 beta subunit, putative
526	putative protein	566	nucleotide diphosphate kinase Ia (emb CAB58230.1)
527	copper transport protein	567	chloroplast Cpn21 protein
528	putative protein	568	ATP dependent copper transporter
529	unknown protein	569	very-long-chain fatty acid condensing enzyme (CUT1)
530	unknown protein	570	putative purine-rich single-stranded DNA-binding protein
531	unknown protein	571	serine/threonine protein phosphatase (type 2A)
532	putative protein kinase	572	isopentenyl diphosphate:dimethylallyl diphosphate isomerase (IPP2)
533	unknown protein	573	putative c2h2 zinc finger transcription factor
534	putative protein	574	putative 20S proteasome beta subunit PBC2
535	putative protein	575	nucleoside diphosphate kinase 3 (ndpk3)
536	hypothetical protein	576	ras-related small GTP-binding protein
537	putative protein	577	putative 4-coumarate:CoA ligase 2
538	putative AP2 domain transcription factor		
539	putative nitrilase		
540	putative protein		
541	putative tetrahydrofolate synthase		
542	heat-shock protein		
543	unkown protein		
544	unknown protein		
545	histone H4		
546	hypothetical protein		
547	unknown protein		
548	putative protein		
549	predicted protein		
550	putative dihydrolipoamide succinyltransferase		
551	actin 3		

TABLE 1 (cont)

578	transcription factor HBP-1b homolog (sp P43273)	609	photosystem II oxygen-evolving complex protein 3 - like
579	biotin synthase (Bio B)	610	sedoheptulose-bisphosphatase precursor
580	homeobox protein HAT22	611	glutathione S-transferase (GST6)
581	putative preprotein translocase SECY protein	612	geranylgeranyl reductase
582	carbamoylphosphate synthetase, putative	613	hypothetical protein
583	putative protein kinase, ADK1	614	hypothetical protein
584	putative nuclear DNA-binding protein G2p	615	phosphoribulokinase precursor
585	hypothetical protein	616	high mobility group protein (HMG1), putative
586	hypothetical protein	617	protease inhibitor II
587	unknown protein	618	protease inhibitor II
588	unknown protein	619	cytochrome P450 90A1 (sp Q42569)
589	molybdopterin synthase (CNX2)	620	unknown protein
590	putative ribosomal protein L6	621	heat shock protein 90
591	unknown protein	622	tubulin beta-9 chain
592	En/Spm-like transposon protein	623	putative ubiquitin carboxyl terminal hydrolase
593	putative protein	624	protein kinase
594	putative protein	625	DRE/CRT-binding protein DREB1C
595	unknown protein	626	histidyl-tRNA synthetase
596	hypothetical protein	627	splicing factor, putative
597	unknown protein	628	glutamyl-tRNA synthetase
598	unknown protein	629	putative RING zinc finger protein
599	putative lysosomal acid lipase	630	phytochelatin synthase (gb AAD41794.1)
600	unknown protein	631	putative C2H2-type zinc finger protein
601	unknown protein	632	putative ligand-gated ion channel protein
602	NifS-like aminotransferase	633	putative ribosomal-protein S6 kinase (ATPK6)
603	actin 3	634	MOLYBDOPTERIN BIOSYNTHESIS CNX1 PROTEIN
604	hypothetical protein	635	temperature-sensitive omega-3 fatty acid desaturase, chloroplast precursor (sp P48622)
605	putative protein	636	adenylosuccinate synthetase
606	heat-shock protein (At-hsc70-3)	637	putative 14-3-3 protein
607	putative protein disulfide isomerase precursor	638	putative cytochrome P450
608	adenosine nucleotide translocator		

TABLE 1 (cont)

639	putative two-component response regulator 3 protein	667	putative receptor-like protein kinase
640	putative RING-H2 zinc finger protein ATL6	668	putative disease resistance protein
641	No function assigned by TIGR	669	receptor-like protein kinase - like
642	small zinc finger-like protein	670	ubiquitin activating enzyme 2 (gb AAB37569.1)
643	hypothetical protein	671	No function assigned by TIGR
644	MAP kinase (ATMPK6)	672	putative receptor-like protein kinase
645	vacuolar ATP synthase, putative	673	K <sup>+</sup> transporter, AKT1
646	kinesin-like protein	674	shaggy-like kinase beta
647	serine/threonine-specific protein kinase NAK	675	heat shock protein 70
648	No function assigned by TIGR	676	plasma membrane intrinsic protein 1a
649	ACTIN 2/7 (sp P53492)	677	HSP90-like protein
650	phosphoglycerate kinase, putative	678	histone H1, putative
651	homeotic protein BEL1 homolog	679	unknown protein
652	proline iminopeptidase	680	dnaK-type molecular chaperone hsc70.1 - like
653	pasticcino 1	681	gamma-glutamylcysteine synthetase
654	serine/threonine protein kinase	682	peroxidase (ATP22a)
655	cytochrome P450 monooxygenase (CYP71B4)	683	putative serine carboxypeptidase precursor
656	No function assigned by TIGR	684	putative dioxygenase
657	putative GDSL-motif lipase/hydrolase	685	glucose transporter
658	putative protein	686	NOI protein, nitrate-induced
659	unknown protein	687	putative protein
660	hypothetical protein	688	putative protein
661	putative glycosylation enzyme	689	unknown protein
662	No function assigned by TIGR	690	putative photosystem I reaction center subunit II precursor
663	No function assigned by TIGR	691	putative protein
664	unknown protein	692	unknown protein
665	putative ABC transporter	693	cobalamin biosynthesis protein
666	nifU-like protein	694	adenine nucleotide translocase
		695	glutathione transferase, putative
		696	putative 60S ribosomal protein L21
		697	cytochrome P450 like protein
		698	cytochrome b245 beta chain homolog RbohAp108, putative
		699	RNA helicase, DRH1
		700	putative aldolase
		701	farnesyltransferase subunit A (FTA)

TABLE 1 (cont)

702	No function assigned by TIGR	725	putative protein
703	putative putative sister-chromatide cohesion protein	726	NBD-like protein (gb AAD20643.1)
704	calcium-dependent protein kinase	727	AtHVA22c
705	serine/threonine protein phosphatase type 2A, putative	728	unknown protein
706	40S ribosomal protein S28 (sp P34789)	729	phytoene synthase (gb AAB65697.1)
707	RNA polymerase subunit	730	protein kinase (AME2/AFC1)
708	DNA-damage-repair/tolerant protein DRT102	731	hypothetical protein
709	putative C2H2-type zinc finger protein	732	cyclin-dependent protein kinase-like protein
710	putative adenosine phosphosulfate kinase	733	photosystem II stability/assembly factor HCF136 (sp O82660)
711	lipase	734	hypothetical protein
712	putative violaxanthin de-epoxidase precursor (U44133)	735	DNA binding-like protein
713	aromatic rich glycoprotein, putative	736	putative protein
714	putative fumarase	737	chorismate mutase
715	flavonol synthase (FLS) (sp Q96330)	738	putative LRR receptor protein kinase
716	response regulator 5, putative	739	putative chalcone synthase
717	sulfate transporter	740	putative protein kinase
718	putative floral homeotic protein, AGL9	741	replicase, putative
719	putative ethylene-inducible protein	742	putative cysteine proteinase
720	C-8,7 sterol isomerase	743	60S ribosomal protein L36
721	TCH4 protein (gb AAA92363.1)	744	unknown protein
722	hypothetical protein	745	CLC-b chloride channel protein
723	putative urease accessory protein	746	putative ribosomal protein S14
724	molybdopterin synthase sulphurylase (gb AAD18050.1)	747	histone H2B like protein (emb CAA69025.1)
		748	60S ribosomal protein L2
		749	60S ribosomal protein L15 homolog
		750	ribosomal protein S27
		751	ribosomal protein
		752	60S ribosomal protein L12
		753	60s ribosomal protein L34
		754	putative ribosomal protein S10
		755	drought-induced protein like
		756	blue copper-binding protein, 15K (lamin)
		757	calmodulin-like protein
		758	putative protein
		759	No function assigned by TIGR
		760	alpha-mannosidase, putative
		761	uncoupling protein (ucp/PUMP)

TABLE 1 (cont)

762	homeodomain - like protein	786	calcium-dependent protein kinase
763	ribosomal protein S18,	(pir S71196)	
putative		787	phosphoinositide specific
764	similar to SOR1 from the	phospholipase C	
fungus <i>Cercospora</i>		788	similarity to S-domain receptor-
<i>nicotianae</i>		like protein kinase, <i>Zea mays</i>	
765	60S ribosomal protein L13,	789	mitosis-specific cyclin 1b
BBC1 protein		790	4-coumarate:CoA ligase 3
766	50S ribosomal protein L24,	791	transcription factor IIB (TFIIB)
chloroplast precursor		792	unknown protein
767	putative ribosomal protein	793	hypothetical protein
768	unknown protein	794	hypothetical protein
769	aspartate aminotransferase	795	sugar transporter like protein
(AAT1)		796	putative trypsin inhibitor
770	potassium channel protein	797	unknown protein
AtKC		798	putative multispanning membrane
771	unknown protein	protein	
772	peroxisomal targeting	799	receptor-like kinase, putative
signal type 2 receptor		800	putative inosine-5-monophosphate
773	putative protein	dehydrogenase	
774	Ras-related GTP-binding	801	inosine-5'-monophosphate
protein (ARA-4)		dehydrogenase, putative	
775	S-receptor kinase homolog	802	amino acid permease 6
2 precursor		(emb CAA65051.1)	
776	pathogenesis-related group	803	NADPH-ferrihemoprotein
5 protein, putative		reductase (ATR2)	
777	Nitrilase 4 (sp P46011)	804	putative WRKY-type DNA binding
778	biotin carboxyl carrier	protein	
protein of acetyl-CoA		805	putative ankyrin
carboxylase precursor		806	putative hexose transporter
(BCCP) (sp Q42533)		807	aquaporin/MIP - like protein
779	photosystem I reaction	808	Ser/Thr protein kinase isolog
centre subunit psaN		809	pectate lyase like protein
precursor (PSI-N)		810	putative 60S ribosomal protein L17
(sp P49107)		811	putative protein
780	3(2),5-bisphosphate	812	unknown protein
nucleotidase		813	phenylalanine ammonia-lyase
781	high affinity Ca <sup>2+</sup>	814	putative cytochrome P450
antiporter		monooxygenase	
782	putative cytoskeletal	815	ARR1 protein, putative
protein		816	putative bHLH transcription factor
783	putative peroxidase	817	aminomethyltransferase-like
784	respiratory burst oxidase	precursor protein	
protein		818	purple acid phosphatase precursor
785	beta-glucosidase		

TABLE 1 (cont)

819	AP2 domain containing protein, putative	844	mercaptopyruvate sulfurtransferase, putative
820	ubiquitin-conjugating enzyme E2-21 kD 1 (ubiquitin-protein ligase 4) (ubiquitin carrier protein 4) (sp P42748)	845	putative thiosulfate sulfurtransferase
821	translation initiation factor	846	dihydrolipoamide S-acetyltransferase
822	putative VAMP-associated protein	847	auxin transport protein REH1, putative
823	spermidine synthase, putative	848	putative auxin transport protein
824	putative protein	849	apyrase (Atapy1)
825	unknown protein	850	root cap 1 (RCP1)
826	AtKAP alpha	851	hypothetical protein
827	glyceraldehyde-3-phosphate dehydrogenase, putative	852	putative protein
828	putative poly(A) binding protein	853	predicted protein of unknown function
829	alpha-tubulin, putative	854	hypothetical protein
830	serine/threonine-specific protein kinase ATPK64 (pir  S20918)	855	hypothetical protein
831	putative aspartate-tRNA ligase	856	hypothetical protein
832	ras-related small GTP-binding protein RAB1c	857	putative aldehyde dehydrogenase
833	cycloartenol synthase	858	putative peroxidase
834	No function assigned by TIGR	859	UDP-glucose 4-epimerase - like protein
835	cytochrome P450	860	indole-3-acetate beta-glucosyltransferase like protein
836	GTPase AtRAB8	861	putative beta-1,3-glucanase
837	3-phosphoserine phosphatase	862	disease resistance protein-like
838	transcription factor CRC	863	putative respiratory burst oxidase protein B
839	nuclear cap-binding protein; CBP20 (gb AAD29697.1)	864	ubiquitin-conjugating enzyme UBC3
840	chloroplast membrane protein (ALBINO3)	865	cytoplasmic aconitate hydratase
841	biotin holocarboxylase synthetase	866	NADPH oxidoreductase, putative
842	expansin AtEx6	867	PROTEIN TRANSPORT PROTEIN SEC61 GAMMA SUBUNIT -like
843	unknown protein	868	putative protein
		869	unknown protein
		870	60S acidic ribosomal protein P2
		871	No function assigned by TIGR
		872	1,4-alpha-glucan branching enzyme protein soform SBE2.2 precursor
		873	calcium binding protein (CaBP-22)
		874	putative phosphoglucomutase



TABLE 1 (cont)

875	shaggy-like protein kinase etha (EC 2.7.1.-)	901	putative RAS superfamily GTP-binding protein
876	pyruvate decarboxylase (gb AAB16855.1)	902	disease resistance protein-like
877	hypothetical protein	903	protein kinase like protein
878	putative protein kinase	904	glucuronosyl transferase-like protein
879	putative protein kinase	905	putative homeodomain transcription factor
880	putative leucine aminopeptidase	906	putative flavonol reductase
881	probable cytochrome P450	907	putative protein
882	protein kinase 6-like protein	908	salt-tolerance protein
883	arginine methyltransferase (pam1)	909	40S ribosomal protein S30
884	MYB96 transcription factor-like protein	910	putative bZIP transcription factor
885	putative protein	911	putative protein
886	metal ion transporter	912	putative cinnamoyl CoA reductase
887	No function assigned by TIGR	913	unknown protein
888	flax rust resistance protein, putative	914	putative RNA-binding protein
889	fructose-2,6-bisphosphatase, putative	915	phosphatidylinositol synthase (PIS1)
890	exonuclease RRP41	916	unknown protein
891	squamosa promoter binding protein-like 2 (emb CAB56576.1)	917	hydroxyproline-rich glycoprotein homolog
892	putative squamosa-promoter binding protein	918	50S ribosomal protein L15, chloroplast precursor
893	O-acetylserine(thiol) lyase, putative	919	unknown protein
894	snoRNA	920	putative YME1 ATP-dependant protease
895	snoRNA	921	unknown protein
896	ferredoxin-NADP+ reductase	922	putative ribosomal protein L28
897	H+-transporting ATP synthase chain 9 - like protein	923	unknown protein
898	photosystem I subunit III precursor, putative	924	putative protein
899	photosystem I subunit VI precursor	925	protein ch-42 precursor, chloroplast
900	auxin-binding protein 1 precursor	926	protein serine/threonine kinase, putative
		927	beta-VPE
		928	putative vacuolar sorting receptor
		929	putative translation initiation factor IF-2
		930	predicted protein of unknown function
		931	putative protein
		932	hypothetical protein
		933	hypothetical protein
		934	phosphate transporter, putative

TABLE 1 (cont)

935	No function assigned by TIGR	961	unknown protein
936	beta subunit of protein farnesyl transferase ERA1	962	unknown protein
937	putative glutamate decarboxylase	963	unknown protein
938	putative indole-3-acetate beta-glucosyltransferase	964	myrosinase-associated protein, putative
939	putative receptor-like protein kinase	965	hypothetical protein
940	UDP-galactose 4-epimerase-like protein	966	hypothetical protein
941	putative proliferating cell nuclear antigen, PCNA	967	No function assigned by TIGR
942	ubiquitin conjugating enzyme E2 (UBC13)	968	unknown protein
943	cyclophilin (CYP2)	969	hypothetical protein
944	cystatin (emb CAA03929.1)	970	LAX1 / AUX1 -like permease
945	putative alcohol dehydrogenase	971	putative UDP-N-acetylglucosamine--dolichyl-phosphate N-acetylglucosaminephosphotransferase
946	acidic ribosomal protein p1	972	chorismate mutase CM2
947	glutathione transferase AtGST 10 (emb CAA10457.1)	973	inner mitochondrial membrane protein
948	putative tropinone reductase	974	DEF (CLA1) protein
949	ZIP4, a putative zinc transporter	975	decoy
950	unknown protein	976	citrate synthase
951	putative protein	977	myosin
952	putative protein	978	40S ribosomal protein S19
953	putative C2H2-type zinc finger protein	979	ripening-related protein - like
954	putative RING zinc finger protein	980	putative signal peptidase I
955	putative microtubule-associated protein	981	methionyl-tRNA synthetase (AtcpMetRS)
956	unknown protein	982	ribosomal protein precursor - like
957	putative protein	983	50S ribosomal protein L21 chloroplast precursor (CL21)
958	putative protein phosphatase-2c	984	putative MYB family transcription factor
959	V-ATPase subunit G (vag2 gene)	985	cyclophilin - like protein
960	hypothetical protein	986	hypothetical protein
		987	naringenin 3-dioxygenase like protein
		988	WD-repeat protein -like protein
		989	putative serine carboxypeptidase II
		990	prenyltransferase, putative
		991	putative ligand-gated ion channel protein
		992	clathrin adaptor medium chain protein MU1B, putative
		993	No function assigned by TIGR

TABLE 1 (cont)

994	putative Tal1-like non-LTR retroelement protein	1025	putative tropinone reductase
995	putative 3-isopropylmalate dehydrogenase	1026	signal response protein (GAI)
996	3-isopropylmalate dehydratase, small subunit	1027	putative steroid sulfotransferase
997	unknown protein	1028	hypothetical protein
998	unknown protein	1029	nucleic acid binding protein - like
999	unknown protein	1030	putative protein
1000	hypothetical protein	1031	blue copper binding protein
1001	putative protein	1032	farnesylated protein (ATFP6)
1002	No function assigned by TIGR	1033	unknown protein
1003	putative beta-glucosidase	1034	putative PCF2-like DNA binding protein
1004	putative pectate lyase A11	1035	teosinte branched1 - like protein
1005	putative beta-glucosidase	1036	putative protein
1006	HD-Zip protein	1037	unknown protein
1007	putative ubiquitin conjugating enzyme	1038	unknown protein
1008	homeobox-leucine zipper protein-like	1039	2-oxoglutarate dehydrogenase, E1 component
1009	cytochrome P450 like protein	1040	unknown protein
1010	putative cysteine proteinase inhibitor B (cystatin B)	1041	unknown protein
1011	ethylene response sensor (ERS)	1042	CCAAT-binding transcription factor subunit A(CBF-A)
1012	putative SWH1 protein	1043	hypothetical protein
1013	putative glutathione S-transferase	1044	putative growth regulator protein
1014	putative protein	1045	putative presenilin
1015	unknown protein	1046	putative expansin
1016	putative protein phosphatase 2C	1047	ribosomal - like protein
1017	dnaJ protein homolog atj3	1048	unknown protein
1018	ferredoxin	1049	unknown protein
1019	hypothetical protein	1050	putative protein
1020	putative sugar transport protein, ERD6	1051	putative protein
1021	putative DnaJ protein	1052	unknown protein
1022	putative AP2 domain transcription factor	1053	unknown protein
1023	putative protein	1054	unknown protein
1024	putative cyclin-dependent kinase regulatory subunit	1055	unknown protein
		1056	unknown protein
		1057	putative protein
		1058	putative protein
		1059	argininosuccinate lyase (AtArgH)
		1060	disease resistance protein homolog
		1061	aldehyde dehydrogenase like protein
		1062	GBF2, G-box binding factor
		1063	CDPK-related kinase
		1064	endo-1,4-beta-glucanase
		1065	putative serine protease

TABLE 1 (cont)

1066	serine/threonine-specific kinase lecRK1 precursor, lectin receptor-like	1091	putative ATP-dependent RNA helicase
1067	putative MAP kinase	1092	putative protein
1068	RNase L inhibitor-like protein	1093	putative HMG protein
1069	No function assigned by TIGR	1094	squalene monooxygenase 2 (squalene epoxidase 2) (SE 2) (sp O65403)
1070	AP2 domain transcription factor	1095	eukaryotic peptide chain release factor subunit 1, putative
1071	polygalacturonase isoenzyme 1 beta subunit, putative	1096	auxin-induced protein - like
1072	putative lipid transfer protein	1097	putative lipoamide dehydrogenase
1073	putative protein kinase	1098	putative protein
1074	putative protein	1099	unknown protein
1075	ATP-dependent RNA helicase like protein	1100	putative oligopeptide transporter
1076	putative cyclic nucleotide-regulated ion channel protein	1101	putative translation elongation factor ts
1077	COP1 like protein	1102	putative CCAAT-binding transcription factor subunit
1078	putative peroxidase	1103	putative ABC transporter
1079	putative NAK-like ser/thr protein kinase	1104	putative superoxide-generating NADPH oxidase flavocytochrome
1080	putative cytochrome C	1105	aspartate kinase-homoserine dehydrogenase - like protein
1081	cytochrome c	1106	putative bHLH transcription factor
1082	putative serine carboxypeptidase II	1107	putative geranylgeranyl transferase type I beta subunit
1083	acyl-(acyl carrier protein) thioesterase	1108	putative ARP2/3 protein complex subunit p41
1084	DNA-binding factor, putative	1109	sulphite reductase
1085	MAP3K delta-1 protein kinase	1110	putative auxin-regulated protein
1086	AtMlo-h1-like protein	1111	transcription factor scarecrow-like 14, putative
1087	No function assigned by TIGR	1112	unknown protein
1088	putative expansin	1113	monooxygenase 2 (MO2)
1089	defender against cell death protein, putative	1114	putative amine oxidase
1090	glycolate oxidase - like protein	1115	zinc finger protein, putative
		1116	DNA-binding protein, putative
		1117	putative protein
		1118	putative protein
		1119	Avr9 elicitor response like protein
		1120	putative protein
		1121	hypothetical protein
		1122	putative nucleotide-sugar dehydratase
		1123	UFD1 like protein

TABLE 1 (cont)

1124	putative trans-prenyltransferase	1155	cytochrome c oxidoreductase like protein
1125	outward rectifying potassium channel KCO	1156	putative carboxymethylenebutenolidase
1126	unknown protein	1157	unknown protein
1127	putative pectinacetyltransferase	1158	unknown protein
1128	putative protein	1159	unknown protein
1129	No function assigned by TIGR	1160	unknown protein
1130	unknown protein	1161	unknown protein
1131	unknown protein	1162	unknown protein
1132	unknown protein	1163	auxin-induced protein (IAA20)
1133	protein phosphatase homolog (PPH1)	1164	50S ribosomal protein L4
1134	unknown protein	1165	putative DNA topoisomerase III beta
1135	No function assigned by TIGR	1166	No function assigned by TIGR
1136	unknown protein	1167	isp4 like protein
1137	unknown protein	1168	putative protein kinase
1138	unknown protein	1169	hypothetical protein
1139	putative protein	1170	putative pyrophosphate--fructose-6-phosphate 1-phosphotransferase
1140	unknown protein	1171	putative protein
1141	putative ubiquinol--cytochrome-c reductase	1172	putative protein
1142	unknown protein	1173	putative protein
1143	contains similarity to high-glucose-regulated protein 8 GB:AAF08813 GI:6449083 from [Homo sapiens]	1174	unknown protein
1144	unknown protein	1175	unknown protein
1145	putative cis-Golgi SNARE protein	1176	putative protein
1146	unknown protein	1177	putative protein
1147	glutamate-1-semialdehyde aminotransferase	1178	unknown protein
1148	No function assigned by TIGR	1179	unknown protein
1149	hypothetical protein	1180	putative protein
1150	unknown protein	1181	brassinosteroid insensitive 1 gene (BRI1)
1151	unknown protein	1182	putative receptor protein kinase
1152	unknown protein	1183	vacuolar-type H <sup>+</sup> -translocating inorganic pyrophosphatase
1153	scarecrow-like 3	1184	protein kinase - like protein
1154	putative proline-rich protein	1185	glycyl tRNA synthetase, putative
		1186	subtilisin proteinase - like
		1187	hypothetical protein
		1188	cytochrome P450-like protein
		1189	cytochrome p450 like protein
		1190	putative protein kinase
		1191	pectinesterase - like protein
		1192	putative receptor-like protein kinase

TABLE 1 (cont)

1193	peroxidase ATP17a -like protein	1219	putative AP2 domain transcription factor
1194	No function assigned by TIGR	1220	brassinosteroid receptor kinase, putative
1195	cellulose synthase catalytic subunit - like protein	1221	TINY-like protein
1196	RAS-related protein, RAB7	1222	glucose-6-phosphate isomerase
1197	putative aspartate aminotransferase	1223	putative protein
1198	cyclophilin	1224	putative NAM (no apical meristem)-like protein
1199	putative SF2/ASF splicing modulator, Srp30	1225	unknown protein
1200	putative cytochrome b5	1226	putative nucleotide-binding protein
1201	glutamyl-tRNA reductase, putative	1227	bZIP transcription factor (POSF21)
1202	putative MADS-box protein	1228	ubiquitin activating enzyme - like protein
1203	ammonium transport protein (AMT1)	1229	telomere repeat-binding protein
1204	No function assigned by TIGR	1230	unknown protein
1205	putative beta-ketoacyl-CoA synthase	1231	mevalonate kinase
1206	thaumatin-like protein	1232	putative protein
1207	putative methionine aminopeptidase	1233	hypothetical protein
1208	putative protein phosphatase 2C	1234	disease resistance RPP5 like protein
1209	kinase-like protein	1235	putative protein
1210	receptor-associated kinase isolog	1236	putative pectinesterase
1211	mitochondrial ribosomal protein S14	1237	Ttg1 protein (emb CAB45372.1)
1212	oleosin, 18.5K	1238	FUSCA PROTEIN FUS6
1213	chalcone isomerase	1239	NHE1 Na <sup>+</sup> /H <sup>+</sup> exchanger
1214	putative cyclin-dependent kinase regulatory subunit	1240	No function assigned by TIGR
1215	putative thaumatin-like protein	1241	Phospholipase like protein
1216	putative two-component response regulator protein	1242	unknown protein
1217	TATA binding protein-associated factor, putative	1243	unknown protein
1218	predicted protein of unknown function	1244	unknown protein
		1245	AUX1-like amino acid permease
		1246	unknown protein
		1247	putative C2H2-type zinc finger protein
		1248	putative protein
		1249	putative protein
		1250	putative glucosyltransferase
		1251	putative lipase
		1252	putative protein
		1253	putative thioredoxin
		1254	AIG2-like protein
		1255	short-chain alcohol dehydrogenase like protein
		1256	hypothetical protein

TABLE 1 (cont)

1257	putative protein	1287	No function assigned by TIGR
1258	putative protein	1288	serine/threonine protein kinase ATPK10
1259	glutathione peroxidase - like protein	1289	putative lipase
1260	putative protein	1290	choline kinase GmCK2p -like protein
1261	putative disease resistance response protein	1291	putative sugar transport protein, ERD6
1262	putative protein	1292	MYB27 protein - like
1263	senescence-associated protein (SAG29)	1293	DNA-binding protein, putative
1264	glycolate oxidase, putative	1294	similar to cold acclimation protein WCOR413 [Triticum aestivum]
1265	extensin - like protein	1295	unknown protein
1266	putative protein	1296	aquaporin (plasma membrane intrinsic protein 2B)
1267	unknown protein	1297	No function assigned by TIGR
1268	putative disease resistance protein	1298	P-Protein - like protein
1269	putative receptor-like protein kinase	1299	No function assigned by TIGR
1270	putative receptor-like protein kinase	1300	putative cytochrome P450 monooxygenase
1271	basic chitinase	1301	putative cytochrome P450 monooxygenase
1272	putative pectin methylesterase	1302	putative thioredoxin
1273	peroxidase ATP N	1303	stromal ascorbate peroxidase
1274	class 2 non-symbiotic hemoglobin	1304	ethylene responsive element binding factor-like protein (AtERF6)
1275	nitrate transporter	1305	auxin transport protein EIR1 (gb AAC39513.1)
1276	Ca <sup>2+</sup> /H <sup>+</sup> -exchanging protein-like	1306	putative CONSTANS-like B-box zinc finger protein
1277	putative protein	1307	putative protein kinase
1278	hydroxynitrile lyase like protein	1308	mitochondrial Lon protease homolog 1 precursor (sp O64948)
1279	putative AP2 domain transcription factor	1309	putative protein
1280	pectin methylesterase, putative	1310	heme activated protein, putative
1281	putative protein	1311	putative cytochrome P450
1282	beta-glucosidase-like protein	1312	No function assigned by TIGR
1283	CCAAT box binding factor/ transcription factor Hap2a	1313	putative lipase
1284	putative fibrillin	1314	putative protein
1285	xyloglucan endo- transglycosylase	1315	putative sugar transporter protein
1286	putative 10kd chaperonin	1316	putative sucrose transport protein, SUC2
		1317	putative protein
		1318	putative protein

TABLE 1 (cont)

1319	putative endochitinase	1351	unknown protein
1320	putative acetone-cyanohydrin lyase	1352	bZIP transcription factor - like protein
1321	putative protein	1353	Medicago nodulin N21-like protein
1322	calmodulin-like protein	1354	putative endo-1,4-beta glucanase
1323	hypothetical protein	1355	1-aminocyclopropane-1-carboxylate oxidase
1324	cysteine proteinase like protein	1356	putative anion exchange protein
1325	heat shock protein 17.6-II	1357	SRG1-like protein
1326	heat shock protein 18	1358	putative protein
1327	Arabidopsis mitochondrion-localized small heat shock protein (AtHSP23.6-mito)	1359	putative phi-1-like phosphate-induced protein
1328	unknown protein	1360	putative protein
1329	putative WRKY-type DNA binding protein	1361	putative embryo-abundant protein
1330	No function assigned by TIGR	1362	putative hydrolase
1331	hypothetical protein	1363	unknown protein
1332	putative integral membrane protein nodulin	1364	unknown protein
1333	putative protein	1365	hexose transporter - like protein
1334	unknown protein	1366	unknown protein
1335	3-isopropylmalate dehydratase, small subunit	1367	unknown protein
1336	unknown protein	1368	peptide transport - like protein
1337	putative homeodomain transcription factor	1369	unknown protein
1338	unknown protein	1370	putative peptide transporter
1339	putative protein	1371	disease resistance protein, putative
1340	peroxidase ATP19a	1372	cysteine protease component of protease-inhibitor complex
1341	putative Na <sup>+</sup> /H <sup>+</sup> -exchanging protein	1373	putative cytochrome P450
1342	putative auxin-regulated protein	1374	putative protein
1343	unknown protein	1375	hypothetical protein
1344	unknown protein	1376	unknown protein
1345	putative trehalose-6-phosphate synthase	1377	putative phosphoribosylaminoimidazolecarboxamide formyltransferase
1346	putative lectin	1378	putative protein
1347	Mlo protein-like	1379	HSP like protein
1348	unknown protein	1380	unknown protein
1349	ethylene response factor, putative	1381	unknown protein
1350	unknown protein	1382	putative cytochrome P450
		1383	similar to pectinesterase
		1384	putative glucosyltransferase
		1385	thaumatin-like protein
		1386	drought-inducible cysteine proteinase RD19A precursor
		1387	vegetative storage protein Vsp2
		1388	unknown protein



TABLE 1 (cont)

1389	unknown protein	1417	G-box binding bZIP transcription factor
1390	anthranilate N-benzoyltransferase - like protein	1418	putative protein
1391	delta-1-pyrroline 5-carboxylase synthetase (P5C1)	1419	putative protein
1392	glutathione S-conjugate transporting ATPase (AtMRP1)	1420	putative protein
1393	hypothetical protein	1421	ATFP4-like
1394	hypothetical protein	1422	unknown protein
1395	unknown protein	1423	unknown protein
1396	putative protein	1424	putative protein
1397	putative protein	1425	invertase inhibitor homolog (emb CAA73335.1)
1398	No function assigned by TIGR	1426	unknown protein
1399	unknown protein	1427	unknown protein
1400	putative protein kinase	1428	putative cytochrome b5
1401	unknown protein	1429	putative protein
1402	hypothetical protein	1430	putative protein
1403	unknown protein	1431	putative protein
1404	putative calcium-binding EF-hand protein	1432	No function assigned by TIGR
1405	cinnamyl-alcohol dehydrogenase ELI3-1	1433	putative copper/zinc superoxide dismutase
1406	putative protein	1434	protein phosphatase ABI1
1407	unknown protein	1435	glutamate dehydrogenase 2
1408	senescence-associated protein sen1	1436	No function assigned by TIGR
1409	hypothetical protein	1437	low-temperature-induced protein 78 (sp Q06738)
1410	putative cytochrome P450	1438	putative myo-inositol 1-phosphate synthase
1411	proline oxidase, mitochondrial precursor (osmotic stress-induced proline dehydrogenase)	1439	phosphate transporter (gb AAB17265.1)
1412	putative response regulator 3	1440	4-hydroxyphenylpyruvate dioxygenase (HPD)
1413	hypothetical protein	1441	histone H1
1414	glutamine-dependent asparagine synthetase	1442	hypothetical protein
1415	lysine-ketoglutarate reductase/saccharopine	1443	No function assigned by TIGR
1416	En/Spm-like transposon protein	1444	neoxanthin cleavage enzyme-like protein
		1445	dehydration-induced protein RD22
		1446	zinc finger protein ZAT7
		1447	unknown protein
		1448	unknown protein
		1449	unknown protein
		1450	unknown protein
		1451	putative protein
		1452	putative protein
		1453	RNA helicase, putative

TABLE 1 (cont)

1454	putative glycine-rich protein	1483	unknown protein
1455	hypothetical protein	1484	cold and ABA inducible protein kin1
1456	putative protein	1485	gamma-VPE (vacuolar processing enzyme)
1457	peroxidase	1486	putative protein 1 photosystem II oxygen-evolving complex
1458	peroxidase ATP3a (emb CAA67340.1)	1487	myrosinase-associated protein, putative
1459	metallothionein-like protein	1488	transcription factor ATMYB4
1460	endomembrane-associated protein	1489	H-protein promoter binding factor-2a
1461	ferritin 1 precursor	1490	ammonium transporter, putative
1462	dehydrin RAB18-like protein (sp P30185)	1491	putative zeta-carotene desaturase precursor
1463	HSR201 like protein	1492	high-affinity nitrate transporter NRT2
1464	light regulated protein, putative	1493	light induced protein like
1465	Dr4(protease inhibitor)	1494	putative AT-hook DNA-binding protein
1466	mitogen activated protein kinase kinase (nMAPKK)	1495	putative glycogenin
1467	glutathione S-transferase	1496	putative light repressible receptor protein kinase
1468	transcriptional activator CBF1/ CRT/CRE binding factor 1	1497	serine/threonine kinase - like protein
1469	homeobox-leucine zipper protein ATHB-12	1498	putative peroxidase
1470	amino acid permease I	1499	cytochrome P450 monooxygenase (CYP83A1)
1471	MAP kinase (ATMPK7)	1500	MYB-related transcription factor (CCA1)
1472	potassium channel protein AKT3	1501	Terminal flower1 (TFL1)
1473	cytochrome P450 monooxygenase (CYP91A2)	1502	sulfate transporter ATST1
1474	putative transport protein	1503	RING-H2 finger protein RHA3b
1475	putative protein	1504	lipoxygenase, putative
1476	hypothetical protein	1505	serine O-acetyltransferase (EC 2.3.1.30) Sat-52 (pir S71207)
1477	putative protein	1506	ferulate-5-hydroxylase (FAH1)
1478	hypothetical protein	1507	En/Spm-like transposon protein, putative
1479	receptor protein kinase-like protein	1508	calmodulin-binding - like protein
1480	serine/threonine protein kinase - like protein	1509	hypothetical protein
1481	putative auxin-regulated protein	1510	somatic embryogenesis receptor-like kinase -like protein
1482	amino acid transport protein AAP2	1511	putative gibberellin beta-hydroxylase

TABLE 1 (cont)

1512	putative pectinesterase	1542	60S acidic ribosomal protein P0
1513	putative protein	1543	putative protein
1514	unknown protein	1544	auxin-induced protein, putative
1515	ribosomal protein	1545	unknown protein
1516	low-temperature-induced 65 kD protein (sp Q04980)	1546	hypothetical protein
1517	putative glucosyltransferase	1547	protein phosphatase 2C ABI2 (PP2C) (sp O04719)
1518	peroxidase (emb CAA67551.1)	1548	peroxidase, prxr2
1519	ankyrin-like protein	1549	putative peroxidase ATP12a
1520	ribosomal protein S11 - like	1550	putative beta-amylase
1521	hypothetical protein	1551	putative acetone-cyanohydrin lyase
1522	glycoprotein(EP1), putative	1552	fatty acid elongase 3-ketoacyl-CoA synthase 1
1523	calnexin - like protein	1553	putative citrate synthase
1524	SRG1-like protein	1554	pEARLI 1-like protein
1525	ethylene response factor 1 (ERF1)	1555	putative MYB family transcription factor
1526	transcriptional activator CBF1-like protein	1556	putative transcription factor MYB28
1527	xyloglucan endo-1,4-beta- D-glucanase (XTR-6)	1557	RNA helicase-like protein
1528	putative cinnamyl alcohol dehydrogenase	1558	snoRNA
1529	gibberellin 3 beta- hydroxylase, putative	1559	putative protein kinase
1530	auxin response transcription factor 3 (ETTIN/ARF3)	1560	growth regulator like protein
1531	No function assigned by TIGR	1561	putative potassium transporter
1532	putative protein	1562	putative protein
1533	similar to avrRpt2-induced protein 1	1563	60S ribosomal protein L14
1534	unknown protein	1564	unknown protein
1535	hypothetical protein	1565	putative RING-H2 zinc finger protein
1536	putative protein kinase	1566	putative pollen surface protein
1537	respiratory burst oxidase - like protein	1567	unknown protein
1538	glucose-6- phosphate/phosphate- translocator precursor, putative	1568	unknown protein
1539	class 1 non-symbiotic hemoglobin (AHB1)	1569	unknown protein
1540	endochitinase isolog	1570	putative Ca <sup>2+</sup> -ATPase
1541	putative cytochrome P450	1571	1-aminocyclopropane-1- carboxylate synthase -like protein
		1572	putative beta-glucosidase
		1573	transcription factor ZAP1
		1574	oligopeptide transporter, putative
		1575	putative protein
		1576	putative glucosyltransferase
		1577	putative serine/threonine kinase
		1578	squalene epoxidase - like protein
		1579	similar to 14KD proline-rich protein DC2.15 precursor

TABLE 1 (cont)

	(sp P14009); similar to ESTs emb Z17709 and emb Z47685	1612	DnaJ-like protein
1580	unknown protein	1613	putative inositol polyphosphate-5- phosphatase
1581	unknown protein	1614	putative cytochrome P450
1582	hypothetical protein	1615	putative protein
1583	60S ribosomal protein L38	1616	unknown protein
1584	flavin-containing monooxygenase, putative	1617	putative protein
1585	remorin	1618	hypothetical protein
1586	unknown protein	1619	putative protein
1587	putative protein	1620	sucrose-UDP glucosyltransferase
1588	lipoxygenase	1621	glucose-6-phosphate 1- dehydrogenase
1589	cold-regulated protein COR6.6 (KIN2)	1622	unknown protein
1590	Myb transcription factor homolog (ATR1)	1623	mitochondrial chaperonin (HSP60)
1591	putative protein	1624	sucrose transport protein SUC1
1592	unknown protein	1625	putative protein disulfide isomerase
1593	unknown protein	1626	putative pollen-specific protein
1594	Ca <sup>2+</sup> -transporting ATPase - like protein	1627	integral membrane protein, putative
1595	protein phosphatase 2C (AtP2C-HA)	1628	rubredoxin, putative
1596	peroxidase ATP24a	1629	putative protein
1597	branched-chain alpha keto- acid dehydrogenase, putative	1630	disease resistance protein RPS4, putative
1598	putative beta-ketoacyl-CoA synthase	1631	putative peptide/amino acid transporter
1599	putative protein	1632	peroxidase, putative
1600	putative beta-galactosidase	1633	ethylene receptor, putative (ETR2)
1601	putative protein	1634	protein phosphatase 2C (PP2C)
1602	60S ribosomal protein L27	1635	putative glutathione S-transferase
1603	putative annexin	1636	homeodomain transcription factor (ATHB-7)
1604	NAC domain protein, putative	1637	putative nitrate transporter
1605	unknown protein	1638	putative ribosomal protein L9, cytosolic
1606	late embryogenesis abundant protein LEA like	1639	putative DNA-binding protein
1607	unknown protein	1640	beta-1,3-glucanase-like protein
1608	putative protein	1641	putative zinc transporter
1609	dehydrin Xero2	1642	transcription factor TINY
1610	putative zinc finger protein	1643	putative aspartate kinase- homoserine dehydrogenase
1611	unknown protein	1644	ethylene response factor-like AP2 domain transcription factor
		1645	peptide transporter - like protein
		1646	trehalose-6-phosphate synthase like protein

TABLE 1 (cont)

1647	putative ribonuclease	1676	pathogenesis-related protein 1 precursor, 19.3K
1648	hypothetical protein	1677	R2R3-MYB transcription factor
1649	putative DNA-binding protein	1678	hypothetical protein
1650	nodulin-like protein	1679	putative chitinase
1651	trehalose-6-phosphate phosphatase - like protein	1680	Mlo protein, putative
1652	succinate dehydrogenase flavoprotein alpha subunit (emb CAA05025.1)	1681	putative WRKY-type DNA binding protein
1653	unknown protein	1682	putative acyl-CoA synthetase
1654	stress related protein, putative	1683	putative pathogenesis-related protein
1655	putative chloroplast initiation factor 3	1684	putative chitinase
1656	putative protein	1685	germin precursor oxalate oxidase
1657	hypothetical protein	1686	endoxylglucan transferase, putative
1658	putative CCCH-type zinc finger protein	1687	putative protein
1659	similar to harpin-induced protein hin1 from tobacco	1688	putative cytochrome P450
1660	unknown protein	1689	similar to Mlo proteins from H. vulgare
1661	unknown protein	1690	putative tropinone reductase
1662	hypothetical protein	1691	extensin-like protein
1663	No function assigned by TIGR	1692	putative sarcosine oxidase
1664	putative protein	1693	putative protein
1665	putative glutathione S-transferase TSI-1	1694	hypothetical protein
1666	putative protein	1695	late embryogenesis-abundant protein, putative
1667	putative PTR2 family peptide transporter	1696	beta-carotene hydroxylase
1668	receptor kinase-like protein	1697	putative calcium binding protein
1669	putative sugar transport protein, ERD6	1698	unknown protein
1670	putative protein	1699	unknown protein
1671	nodulin-like protein	1700	predicted glycosyl transferase
1672	unknown protein	1701	hypothetical protein
1673	putative receptor-like protein kinase	1702	hypothetical protein
1674	glutathione-conjugate transporter AtMRP4	1703	hypothetical protein
1675	ascorbate oxidase-like protein	1704	putative protein
		1705	unknown protein
		1706	putative protein
		1707	putative protein
		1708	serine/threonine kinase - like protein
		1709	No function assigned by TIGR
		1710	putative pectinesterase
		1711	peroxidase like protein
		1712	No function assigned by TIGR

TABLE 1 (cont)

1713	phenylalanine ammonia lyase (PAL1)		Coenzyme A 3-O- methyltransferase
1714	peroxidase (emb CAA68212.1)	1740	disease resistance protein EDS1
1715	putative AMP deaminase	1741	putative protein kinase
1716	putative MYB family transcription factor	1742	Glutathione reductase, chloroplast precursor
1717	DNA-directed RNA polymerase II, third largest subunit	1743	putative heat shock protein
1718	nucleotide pyrophosphatase -like protein	1744	aspartate kinase
1719	putative peroxidase	1745	putative major intrinsic (channel) protein
1720	calcium sensor homolog (gb AAC26110.1)	1746	matrix metalloproteinase, putative
1721	putative GDSL-motif lipase/hydrolase	1747	putative GDSL-motif lipase/hydrolase
1722	putative nonspecific lipid- transfer protein	1748	putative protein
1723	acyl-carrier protein (ACP), putative	1749	DAG-like protein
1724	putative glycine dehydrogenase	1750	serine/threonine kinase -like protein
1725	AIG1	1751	formamidase - like protein
1726	ACC synthase (AtACS-6)	1752	CER2
1727	cyclin delta-3	1753	26S proteasome subunit 4
1728	putative RING zinc finger protein	1754	pectinesterase like protein
1729	aldose 1-epimerase - like protein	1755	putative disease resistance protein
1730	putative phospholipase	1756	putative RNA methyltransferase
1731	phosphoenolpyruvate carboxylase	1757	unknown protein
1732	putative galactinol synthase	1758	HOMEBOX PROTEIN KNOTTED-1 LIKE 4 (KNAT4)
1733	unknown protein	1759	glycine-rich RNA-binding protein AtGRP2 - like
1734	putative protein	1760	putative acetylornithine transaminase
1735	1-aminocyclopropane-1- carboxylate oxidase	1761	putative Sec24-like COPII protein
1736	thioredoxin (clone GIF1) (pir S58118)	1762	putative berberine bridge enzyme
1737	trehalose-6-phosphate phosphatase	1763	putative GH3-like protein
1738	beta-1,3-glucanase 2 (BG2) (PR-2)	1764	putative ABC transporter
1739	putative S-adenosyl-L- methionine:trans-caffeoyl-	1765	putative reticuline oxidase-like protein
		1766	pectate lyase - like protein
		1767	protein disulfide-isomerase-like protein
		1768	putative protein
		1769	putative membrane transporter
		1770	unknown protein
		1771	unknown protein
		1772	putative RING-H2 zinc finger protein

TABLE 1 (cont)

1773	unknown protein	1807	glycine-rich RNA binding protein
1774	unknown protein	7	
1775	unknown protein	1808	dehydrin, putative
1776	MADS-box protein	1809	putative endoxyloglucan
(AGL20)			glycosyltransferase
1777		1810	glutamate decarboxylase 1 (GAD
	amidophosphoribosyltransf	1)	(sp Q42521)
	erase 2 precursor	1811	delta 9 desaturase
1778	putative dihydrodipicolinate	1812	UDP-glucose glucosyltransferase
	synthase	1813	CARBONIC ANHYDRASE 2
1779	hypothetical protein	1814	response reactor 2 (ATRR2)
1780	ABA-responsive protein -	1815	S-adenosyl-methionine-sterol-C-
like			methyltransferase, putative
1781	putative protein	1816	putative DNA-binding protein
1782	hypothetical protein	(RAV2-like)	
1783	DNA-binding protein-like	1817	gamma glutamyl hydrolase,
1784	No function assigned by		putative
TIGR		1818	protein phosphatase - like
1785	transcription factor,	1819	unknown protein
putative		1820	unknown protein
1786	nitrate reductase, putative	1821	unknown protein
1787	putative protein	1822	copper transport protein - like
1788	putative protein		protein
1789	putative protein	1823	hypothetical protein
1790	putative protein	1824	unknown protein
1791	unknown protein	1825	putative peptide methionine
1792	unknown protein		sulfoxide reductase
1793	tryptophan synthase beta-	1826	putative obtusifoliol 14-alpha
	subunit (TSB2)		demethylase
1794	hypothetical protein	1827	glutamate dehydrogenase (EC
1795	putative protein	1.4.1.-) 1 (pir  S71217)	
1796	putative DNA-binding	1828	unknown protein
protein		1829	xyloglucan endo-1,4-beta-D-
1797	putative 40S ribosomal		glucanase precursor
	protein S10	1830	unknown protein
1798	putative protein	1831	SNF1 related protein kinase
1799	putative cytochrome P450	(ATSRPK1)	
1800	putative protein	1832	putative protein
1801	putative protein	1833	putative chloroplast nucleoid DNA
1802	putative glucosyltransferase		binding protein
1803	No function assigned by	1834	hypothetical protein
TIGR		1835	putative protein
1804	putative protein	1836	putative thiamin biosynthesis
1805	putative protein		protein
1806	unknown protein	1837	unknown protein

TABLE 1 (cont)

1838	unknown protein	1869	putative tyrosine aminotransferase
1839	putative RNA helicase	1870	thionin
1840	putative SF21 protein { <i>Helianthus annuus</i> }	1871	No function assigned by TIGR
1841	unknown protein	1872	APETALA2 protein
1842	NBS/LRR disease resistance protein, putative	1873	MADS-box protein (AGL3)
1843	hypothetical protein	1874	putative monooxygenase
1844	unknown protein	1875	ZFP3 zinc finger protein
1845	No function assigned by TIGR	1876	cell division protein FtsZ chloroplast homolog precursor (sp Q42545)
1846	glycine-rich protein (AtGRP2)	1877	calreticulin, putative
1847	No function assigned by TIGR	1878	phosphoserine aminotransferase
1848	putative protein	1879	12-oxophytodienoate-10,11- reductase
1849	putative glucosyltransferase	1880	putative bHLH transcription factor
1850	hypothetical protein	1881	pectin methylesterase (PMEU1), putative
1851	hypothetical protein	1882	DNA-binding protein
1852	putative protein	1883	carnitine racemase like protein
1853	putative disease resistance protein	1884	putative protein
1854	thaumatin, putative	1885	endoxyloglucan transferase (dbj BAA81669.1)
1855	putative proline-rich protein	1886	RMA1 RING zinc finger protein
1856	sterol-C-methyltransferase	1887	ammonium transporter
1857	superoxidase dismutase	1888	apyrase (gb AAF00612.1)
1858	TINY-like protein	1889	potassium uptake transporter - like protein
1859	calcium-dependent protein kinase, putative	1890	putative ABC transporter
1860	hypothetical protein	1891	potassium transporter-like protein
1861	putative protein kinase	1892	integral membrane protein, putative
1862	DNA-directed RNA polymerase (mitochondrial)	1893	putative protein
1863	putative DNA-binding protein	1894	pyruvate decarboxylase-1 (Pdc1)
1864	late embryogenesis abundant M17 protein	1895	putative malate oxidoreductase
1865	putative protein	1896	putative histone H2B
1866	delta-1-pyrroline-5- carboxylate synthetase	1897	snoRNA
1867	putative 60s ribosomal protein L10	1898	symbiosis-related like protein
1868	cytochrome P450 CYP86A1	1899	unknown protein
		1900	unknown protein
		1901	hypothetical protein
		1902	putative protein
		1903	copper-binding protein-like
		1904	putative protein
		1905	unknown protein
		1906	putative glyoxalase II



TABLE 1 (cont)

1907	No function assigned by TIGR	1936	serine/threonine protein kinase, putative
1908	hypothetical protein	1937	potassium transporter - like protein
1909	flavanone 3-hydroxylase (FH3)	1938	lactate dehydrogenase (LDH1)
1910	putative laccase	1939	hypothetical protein
1911	putative protein kinase	1940	unknown protein
1912	myb-related protein, 33.3K (pir  S71284)	1941	putative thaumatin
1913	unknown protein	1942	putative reticuline oxidase-like protein
1914	endo-xyloglucan transferase - like protein	1943	uracil phosphoribosyltransferase, putative
1915	TMV resistance protein N - like	1944	transcription factor, putative
1916	putative xyloglucan endotransglycosylase	1945	unknown protein
1917	unknown protein	1946	unknown protein
1918	proline transporter 2	1947	GATA transcription factor 4
1919	resistance protein, putative	1948	unknown protein
1920	actin, putative	1949	unknown protein
1921	putative related to microbial divalent cation tolerance proteins	1950	senescence-associated protein -like
1922	unknown protein	1951	putative pollen allergen
1923	putative glycosyl transferase	1952	unknown protein
1924	unknown protein	1953	putative protein
1925	putative protein phosphatase 2C	1954	glycine-rich protein
1926	unknown protein	1955	putative protein
1927	serpin, putative	1956	3-methyladenine DNA glycosylase, putative
1928	cinnamyl-alcohol dehydrogenase CAD1	1957	endoplasmic reticulum-type calcium-transporting ATPase 4
1929	putative protein import receptor	1958	putative pectinesterase
1930	unknown protein	1959	cytochrome P450-like protein
1931	unknown protein	1960	RNA-binding protein (cp33)
1932	putative protein	1961	CONSTANS-like 1
1933	putative CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase	1962	putative small heat shock protein
1934	unknown protein	1963	hypothetical protein
1935	putative LRR receptor-like protein kinase	1964	unknown protein
		1965	cytochrome P450 - like protein
		1966	cysteine proteinase inhibitor like protein
		1967	nicotianamine synthase (dbj BAA74589.1)
		1968	copper amine oxidase like protein (fragment2)
		1969	putative SCARECROW gene regulator
		1970	unknown protein
		1971	unknown protein

TABLE 1 (cont)

1972	putative alanine acetyl transferase	2001	auxin response factor 1
1973	unknown protein	2002	pathogenesis-related protein 1 precursor, 18.9K
1974	unknown protein	2003	hypothetical protein
1975	unknown protein	2004	unknown protein
1976	putative extensin	2005	zinc finger protein Zat12
1977	putative protein kinase	2006	unknown protein
1978	putative protein kinase	2007	unknown protein
1979	NADPH-dependent codeinone reductase, putative	2008	cyclin, putative
1980	peroxidase	2009	2-dehydro-3-deoxyphosphoheptonate aldolase
1981	putative cytochrome P450	2010	glutathione synthetase gsh2
1982	No function assigned by TIGR	2011	heat shock protein 17
1983	putative zinc-finger protein (B-box zinc finger domain)	2012	putative Na <sup>+</sup> -dependent inorganic phosphate cotransporter
1984	putative tyrosine aminotransferase	2013	No function assigned by TIGR
1985	hypothetical protein	2014	unknown protein
1986	DNA binding protein	2015	putative protein
1987	putative fatty acid elongase	2016	similar to RING-H2 finger protein RHC1a GB:AAC69854 GI:3790583 from [Arabidopsis thaliana]
1988	bZIP transcription factor - like protein	2017	calcium-binding protein - like
1989	xyloglucan fucosyltransferase, putative	2018	putative protein
1990	unknown protein	2019	putative aldehyde dehydrogenase
1991	unknown protein	2020	auxin-responsive GH3 - like protein
1992	putative protein	2021	putative protein
1993	myb factor, putative	2022	Phosphoglycerate dehydrogenase - like protein
1994	Myb-family transcription factor, putative	2023	unknown protein
1995	putative fructose bisphosphate aldolase	2024	unknown protein
1996	myrosinase-associated protein, putative	2025	PSI type III chlorophyll a/b-binding protein, putative
1997	cytochrome P450 like protein	2026	putative protein
1998	similar to SOR1 from the fungus <i>Cercospora nicotianae</i>	2027	putative protein
1999	similar to embryo-abundant protein GB:L47672 GI:1350530 from [ <i>Picea glauca</i> ]	2028	glutaredoxin, putative
2000	alcohol dehydrogenase	2029	hypothetical protein
		2030	No function assigned by TIGR
		2031	putative protein
		2032	jasmonate inducible protein, putative
		2033	putative polygalacturonase isoenzyme 1 beta subunit
		2034	putative small heat shock protein

TABLE 1 (cont)

2035	unknown protein	2068	putative chlorophyll A-B binding protein
2036	putative disease resistance protein	2069	Lhcb3 chlorophyll a/b binding protein (gb AAD28773.1)
2037	putative protein	2070	luminal binding protein (dbj BAA13948.1)
2038	ethylene-responsive element binding factor, putative	2071	hydroxypyruvate reductase (HPR)
2039	putative protein	2072	epoxide hydrolase (ATsEH)
2040	Pollen-specific protein precursor like	2073	putative protein (fragment)
2041	putative protein	2074	unknown protein
2042	unknown protein	2075	hypothetical protein
2043	EF-Hand containing protein -like	2076	putative glucosyl transferase
2044	unknown protein	2077	putative glucosyl transferase
2045	putative calcium-transporting ATPase	2078	putative 3-methylcrotonyl-CoA carboxylase
2046	antifungal protein-like (PDF1.2)	2079	putative peroxidase
2047	pathogenesis-related PR-1-like protein	2080	acyl-CoA oxidase (gb AAC13497.1)
2048	similar to Mlo proteins from <i>H. vulgare</i>	2081	alternative oxidase 1a precursor
2049	putative steroid sulfotransferase	2082	putative transcription factor (MYB4)
2050	trehalase - like protein	2083	serine acetyltransferase
2051	thioredoxin f1	2084	ATP-sulfurylase
2052	unknown protein	2085	calreticulin (crt1)
2053	alanine-glyoxylate aminotransferase	2086	putative prohibitin 2
2054	integral membrane protein, putative	2087	putative monodehydroascorbate reductase
2055	hypothetical protein	2088	branched-chain alpha-keto acid decarboxylase E1 beta subunit
2056	unknown protein	2089	cytokinin oxidase - like protein
2057	hypothetical protein	2090	putative receptor-like protein kinase
2058	unknown protein	2091	unknown protein
2059	unknown protein	2092	hypothetical protein
2060	unknown protein	2093	No function assigned by TIGR
2061	drought-induced-19-like 1	2094	putative APG protein
2062	unknown protein	2095	glutathione S-transferase, putative
2063	putative protein	2096	phytochrome-associated protein 1 (PAP1)
2064	putative protein	2097	amidophosphoribosyltransferase
2065	AIG2-like protein	2098	nonphototropic hypocotyl 1
2066	Lhca2 protein	2099	3-keto-acyl-CoA thiolase 2 (gb AAC17877.1)
2067	phytocyanin	2100	pEARLI 1
		2101	glutathione reductase, cytosolic

TABLE 1 (cont)

2102	putative protein	2128	putative protein disulfide-isomerase
2103	putative protein	2129	unknown protein
2104	putative aldehyde oxidase	2130	beta-1,3-glucanase class I precursor
2105	probable photosystem I chain XI precursor	2131	homeobox-leucine zipper protein HAT5 (HD-ZIP protein 5) (HD-ZIP protein ATHB-1)
2106	photosystem II polypeptide, putative	2132	putative cyclic nucleotide-regulated ion channel protein
2107	photosystem II reaction center 6.1KD protein	2133	P II nitrogen sensing protein GLB I
2108	33 kDa polypeptide of oxygen-evolving complex (OEC) in photosystem II (emb CAA75629.1)	2134	H-protein promoter binding factor-1 (gb AAC24592.1)
2109	60S ribosomal protein	2135	GAST1-like protein
L11B		2136	cytochrome P450 GA3
2110	extA (emb CAA47807.1)	2137	putative protein
2111	zinc finger protein OBP4 - like	2138	Myb-related transcription factor-like protein
2112	sterol delta7 reductase	2139	putative phloem-specific lectin
2113	putative RAS-related protein, RAB11C	2140	protein kinase - like protein
2114	glucosyltransferase like protein	2141	unknown protein
2115	zinc finger protein (PMZ), putative	2142	SCARECROW transcriptional regulator-like
2116	6,7-dimethyl-8-ribityllumazine synthase precursor	2143	unknown protein
2117	putative protein	2144	unknown protein
2118	osmotin precursor	2145	putative protein
2119	No function assigned by TIGR	2146	calnexin homolog
2120	ferredoxin precursor isolog	2147	PP1/PP2A phosphatases
2121	GH3 like protein		pleiotropic regulator PRL2
2122	non-specific lipid transfer protein	2148	xyloglucan endotransglycosylase, putative
2123	homeodomain transcription factor (HAT9)	2149	putative calmodulin
2124	putative cytochrome P450 monooxygenase	2150	spermine synthase (ACL5)
2125	putative protein kinase	2151	snoRNA
2126	putative protein	2152	photosystem I subunit V precursor, putative
2127	glyceraldehyde-3-phosphate dehydrogenase	2153	putative potassium transporter
		2154	Homeodomain - like protein
		2155	putative protein
		2156	unknown protein
		2157	CALMODULIN-RELATED PROTEIN 2, TOUCH-INDUCED (TCH2)
		2158	putative protein phosphatase 2C

TABLE 1 (cont)

2159	monosaccharide transport protein, STP4	2187	defender against cell death protein
2160	hypothetical protein	2188	AP2 domain containing protein, putative
2161	unknown protein	2189	actin depolymerizing factor - like protein
2162	hypothetical protein	2190	putative calcium-dependent protein kinase (U90439)
2163	putative protein kinase	2191	phosphoribosylanthranilate transferase, putative
2164	putative serine/threonine protein kinase	2192	oligopeptide transporter, putative
2165	jasmonate inducible protein, putative	2193	calmodulin-like protein
2166	similar to several small proteins (~100 aa) that are induced by heat, auxin, ethylene and wounding such as <i>Phaseolus aureus</i> indole-3-acetic acid induced protein ARG (SW:32292)	2194	putative protease inhibitor
2167	unknown protein	2195	MAP kinase
2168	MYB-like protein	2196	DNA binding protein MybSt1, putative
2169	putative protein kinase	2197	putative protein
2170	unknown protein	2198	putative protein
2171	CLC-d chloride channel protein	2199	unknown protein
2172	cytochrome P450-like protein	2200	unknown protein
2173	putative glutathione S-transferase	2201	unknown protein
2174	putative mandelonitrile lyase	2202	putative protein
2175	hypothetical protein	2203	unknown protein
2176	putative trypsin inhibitor	2204	unknown protein
2177	male sterility 2-like protein (emb CAA68191.1)	2205	hypothetical protein
2178	unknown protein	2206	uncharacterized protein
2179	unknown protein	2207	putative protein
2180	putative protein	2208	hypothetical protein
2181	putative peroxidase	2209	peroxidase (emb CAA66967.1)
2182	putative thromboxane-A synthase	2210	putative flavonol 3-O-glucosyltransferase
2183	putative cytochrome P450	2211	putative flavonol 3-O-glucosyltransferase
2184	peroxidase ATP21a	2212	putative protein
2185	unknown protein	2213	glycerol-3-phosphate acyltransferase
2186	putative glutathione S-transferase	2214	putative beta-1,3-glucanase
		2215	putative ethylene response element binding protein (EREBP)
		2216	putative CONSTANS-like B-box zinc finger protein
		2217	putative protein
		2218	unknown protein
		2219	putative trehalose-6-phosphate phosphatase (AtTPPA)
		2220	putative protein

TABLE 1 (cont)

2221	putative protein	2251	lysine and histidine specific transporter, putative
2222	unknown protein	2252	putative protein
2223	unknown prptein	2253	putative protein
2224	unknown protein	2254	putative sugar transporter protein
2225	hypothetical protein	2255	12S cruciferin seed storage protein
2226	putative metal-binding protein	2256	putative auxin-induced protein, IAA17/AXR3-1
2227	putative phosphoribosylglycinamide synthetase	2257	putative cyclin D
2228	unknown protein	2258	farnesyl diphosphate synthase precursor (gb AAB49290.1)
2229	putative protein	2259	putative potassium transport protein (TRH1)
2230	unknown protein	2260	putative NPK1-related MAP kinase
2231	unknown protein	2261	putative protein
2232	putative beta-galactosidase	2262	putative ABC transporter
2233	putative protein kinase	2263	putative DNA-directed RNA polymerase subunit
2234	putative protein	2264	putative small nuclear ribonucleoprotein E
2235	putative protein phosphatase 2C	2265	unknown protein
2236	putative growth regulator protein	2266	reticuline oxidase - like protein
2237	putative ABC transporter	2267	putative 1-aminocyclopropane-1-carboxylate oxidase
2238	chloride channel (emb CAA70310.1)	2268	similar to Mlo proteins from H. vulgare
2239	adrenodoxin - like protein	2269	long-chain-fatty-acid--CoA ligase-like protein
2240	NAM (no apical meristem)-like protein	2270	putative protein
2241	putative transcription factor MYB41	2271	chromatin remodelling complex ATPase chain ISWI-like protein
2242	Myb DNA binding protein - like	2272	hypothetical protein
2243	AtMYB84	2273	latex-abundant protein, putative
2244	photosystem II type I chlorophyll a/b binding protein	2274	N-acetylornithine deacetylase-like protein, fragment
2245	putative aspartic proteinase	2275	putative DNA-binding protein
2246	jasmonate inducible protein, putative	2276	putative anthranilate N-hydroxycinnamoyl/benzoyltransferase
2247	putative protein	2277	putative DNA binding protein
2248	No function assigned by TIGR	2278	cytochrome P450 - like protein
2249	putative phosphatidylserine synthase	2279	putative DNA-binding protein
2250	putative nicotianamine synthase	2280	putative peptide transporter
		2281	putative reticuline oxidase-like protein

TABLE 1 (cont)

2282	thioredoxin, putative	2313	putative protein kinase
2283	nodulin-like protein	2314	indoleacetic acid (IAA)-inducible gene (IAA7)
2284	UDP-galactose transporter - like protein	2315	ATP-dependent Clp protease regulatory subunit CLPX
2285	putative fibrillin	2316	DNA-binding protein RAV1
2286	unknown protein	2317	putative protein
2287	unknown protein	2318	hypothetical protein
2288	unknown protein	2319	unknown protein
2289	hypothetical protein	2320	unknown protein
2290	glyceraldehyde 3-phosphate dehydrogenase A subunit (GapA)	2321	putative protein
2291	predicted protein of unknown function	2322	putative thioredoxin reductase
2292	putative protein	2323	unknown protein
2293	putative protein	2324	putative lectin
2294	myb-like protein	2325	No function assigned by TIGR
2295	hypothetical protein	2326	beta-fructosidase
2296	putative U5 small nuclear ribonucleoprotein, an RNA helicase	2327	chlorophyll a/b-binding protein CP29
2297	unknown protein	2328	photosystem I subunit PSI-E - like protein
2298	cinnamyl alcohol dehydrogenase - like protein	2329	peroxidase ATP8a
2299	hypothetical protein similar to extensin-like protein	2330	putative fructose bisphosphate aldolase
2300	unknown protein	2331	zinc finger protein ATZF1, putative
2301	putative chlorophyll a/b binding protein	2332	DegP protease precursor
2302	probable plasma membrane intrinsic protein 1c	2333	transcription factor-like protein
2303	hexokinase (ATHXK2)	2334	calcium-dependent protein kinase
2304	calcium-dependent protein kinase	2335	hypothetical protein
2305	5'-adenylylphosphosulfate reductase, putative	2336	putative protein
2306	Erd1 protein precursor (sp P42762)	2337	glucose-1-phosphate adenylyltransferase (APL3)
2307	putative protein	2338	No function assigned by TIGR
2308	putative protein	2339	putative Eukaryotic initiation factor 4A
2309	unknown protein	2340	No function assigned by TIGR
2310	BCS1 protein-like protein	2341	unknown protein
2311	putative protein	2342	beta tubulin 1, putative
2312	putative protein	2343	one helix protein (OHP)
		2344	No function assigned by TIGR
		2345	zinc finger protein 5, ZFP5
		2346	putative MYB family transcription factor
		2347	putative amino acid transporter protein

TABLE 1 (cont)

2348	putative potassium transporter	2374	putative PHD-type zinc finger protein
2349	protein kinase (AFC2)	2375	nuclear RNA binding protein A-like protein
2350	putative protein	2376	unknown protein
2351	No function assigned by TIGR	2377	unknown protein
2352	putative ubiquitin-conjugating enzyme E2	2378	unknown protein
2353	unknown protein	2379	putative amino-cyclopropane-carboxylic acid oxidase (ACC oxidase)
2354	cytochrome P450 monooxygenase (CYP71B3)	2380	hypothetical protein
2355	putative myrosinase-binding protein	2381	indole-3-acetate beta-glucosyltransferase like protein
2356	putative vacuolar sorting receptor	2382	predicted protein
2357	uridine diphosphate glucose epimerase	2383	unknown protein
2358	shaggy related protein kinase, ASK-GAMMA	2384	No function assigned by TIGR
2359	ankyrin repeat protein EMB506	2385	putative photosystem I reaction center subunit IV
2360	putative beta-alanine-pyruvate aminotransferase	2386	putative homeodomain transcription factor
2361	putative alcohol dehydrogenase	2387	putative purple acid phosphatase precursor
2362	putative receptor-like protein kinase	2388	No function assigned by TIGR
2363	unknown protein	2389	nitrate reductase 1 (NR1)
2364	putative methylmalonate semi-aldehyde dehydrogenase	2390	putative casein kinase II beta subunit
2365	hypothetical protein	2391	pEARLI 1-like protein
2366	unknown protein	2392	putative protein
2367	peroxidase ATP13a	2393	No function assigned by TIGR
2368	putative glutathione peroxidase	2394	unknown protein
2369	squamosa promoter binding protein-like 7	2395	putative cell wall-plasma membrane disconnecting CLCT protein (AIR1A)
2370	photosystem II core complex protein, putative	2396	unknown protein
2371	snoRNA	2397	scarecrow-like 11 - like
2372	photosystem I subunit X precursor	2398	putative anthocyanidin synthase
2373	MYB transcription factor (Atmyb2)	2399	putative AP2 domain transcription factor
		2400	caffeoyl-CoA O-methyltransferase - like protein
		2401	unknown protein
		2402	putative protein kinase
		2403	cytochrome P450 -like protein
		2404	putative MADS-box protein ANR1
		2405	putative glutathione S-transferase



TABLE 1 (cont)

2406	hypothetical protein	2437	putative protein
2407	similar to gibberellin-regulated proteins	2438	unknown protein
2408	unknown protein	2439	unknown protein
2409	putative sensory transduction histidine kinase	2440	putative protein
2410	similar to late embryogenesis abundant proteins	2441	No function assigned by TIGR
2411	unknown protein	2442	MADS-box protein AGL14
2412	putative protein	2443	No function assigned by TIGR
2413	putative ATP-dependent RNA helicase	2444	peptidylprolyl isomerase
2414	putative protein	2445	putative s-adenosylmethionine synthetase
2415	putative sucrose synthetase	2446	peroxidase
2416	beta-fructofuranosidase 1	2447	ferrochelataase-I
2417	putative indole-3-acetate beta-glucosyltransferase	2448	putative eukaryotic initiation factor 4, eIF4
2418	hypothetical protein	2449	drought-inducible cysteine proteinase RD21A precursor -like protein
2419	DNA-directed RNA polymerase II, third largest subunit	2450	unknown protein
2420	putative transcription factor	2451	unknown protein
2421	homeobox-leucine zipper protein ATHB-5 (HD-zip protein ATHB-5) (sp P46667)	2452	No function assigned by TIGR
2422	putative ftsH chloroplast protease	2453	No function assigned by TIGR
2423	replication protein A1 - like	2454	salt-inducible like protein
2424	hypothetical protein	2455	glucose-6-phosphate 1-dehydrogenase
2425	unknown protein	2456	3-hydroxy-3-methylglutaryl CoA reductase (AA 1-592)
2426	unknown protein	2457	hypothetical protein
2427	putative methionine aminopeptidase	2458	putative protein
2428	unknown protein	2459	putative putative 60S ribosomal protein L17
2429	fatty acid elongase - like protein (cer2-like)	2460	putative inorganic pyrophosphatase
2430	unknown protein	2461	putative gamma-glutamyltransferase
2431	putative disease resistance response protein	2462	heat shock transcription factor - like protein
2432	putative protein	2463	mitochondrial chaperonin hsp60
2433	unknown protein	2464	unknown protein
2434	putative protein	2465	putative zinc finger protein identical to T10M13.22
2435	putative protein	2466	putative uridylyl transferase
2436	unknown protein	2467	nodulin-like protein
		2468	putative B-box zinc finger protein
		2469	No function assigned by TIGR
		2470	putative metalloproteinase

TABLE 1 (cont)

2471	putative cellular apoptosis susceptibility protein	2504	unknown protein
2472	hypothetical protein	2505	unknown protein
2473	hypothetical protein	2506	60S ribosomal protein L10A
2474	scarecrow-like 13 (SCL13)	2507	putative protein
2475	putative nucleoside triphosphatase	2508	receptor protein kinase (IRK1), putative
2476	unknown protein	2509	putative nematode-resistance protein
2477	No function assigned by TIGR	2510	tubulin alpha-5 chain-like protein
2478	hypothetical protein	2511	putative DNA-binding protein
2479	putative phospholipase	2512	unknown protein
2480	putative snRNP protein	2513	putative RGA1, giberellin response modulation protein
2481	putative protein	2514	non phototropic hypocotyl 1-like
2482	putative lipase	2515	RING-H2 finger protein RHA1b
2483	putative nonsense-mediated mRNA decay protein	2516	putative myb-protein
2484	No function assigned by TIGR	2517	hydroperoxide lyase (HPOL) like protein
2485	protochlorophyllide reductase precursor	2518	serine/threonine-protein kinase, PK7
2486	No function assigned by TIGR	2519	putative vacuolar proton-ATPase subunit
2487	trehalose-6-phosphate synthase, putative	2520	putative polygalacturonase
2488	unknown protein	2521	putative ribosomal protein L8
2489	germin-like protein	2522	putative adenylate kinase
2490	plastid protein	2523	germin-like protein (GLP10)
2491	putative protein	2524	putative chlorophyll a/b binding protein
2492	hypothetical protein	2525	chloroplast single subunit DNA-dependent RNA polymerase
2493	unknown protein	2526	putative protein
2494	unknown protein	2527	hypothetical protein
2495	histone deacetylase-like protein	2528	hypothetical protein
2496	unknown protein	2529	b-keto acyl reductase, putative
2497	unknown protein	2530	cellulose synthase catalytic subunit
2498	putative protein	2531	putative 1-aminocyclopropane-1-carboxylate oxidase
2499	putative protein	2532	S-linalool synthase, putative
2500	No function assigned by TIGR	2533	phosphoribosyl-ATP pyrophosphohydrolase (At-IE)
2501	putative zinc transporter ZIP2 - like	2534	disease resistance RPP5 like protein (fragment)
2502	unknown protein	2535	putative protein
2503	putative ribosomal-protein S6 kinase (ATPK19)	2536	beta-galactosidase like protein

TABLE 1 (cont)

2537	putative translation initiation factor eIF-2, gamma subunit	2566	unknown protein
2538	ankyrin like protein	2567	unknown protein
2539	histone H2A- like protein	2568	unknown protein
2540	putative protein	2569	serine/threonine kinase - like protein
2541	salt-tolerance zinc finger protein	2570	peroxidase (emb CAA66960.1)
2542	unknown protein	2571	putative protein
2543	putative protein	2572	hypothetical protein
2544	fructose-bisphosphate aldolase	2573	glycine-rich protein 2 (GRP2)
2545	peroxidase (emb CAA66964.1)	2574	unknown protein
2546	patatin-like protein	2575	berberine bridge enzyme-like protein
2547	salt-inducible protein homolog	2576	unknown protein
2548	hypothetical protein	2577	putative WD-repeat protein
2549	xyloglucan endo-transglycosylase-like protein	2578	serine/threonine kinase - like protein
2550	trihelix DNA-binding protein (GT2)	2579	serine /threonine kinase - like protein
2551	ubiquitin-conjugating enzyme 16, putative	2580	Cu <sup>2+</sup> -transporting ATPase-like protein
2552	homeobox protein	2581	translation initiation factor eIF4E
2553	envelope Ca <sup>2+</sup> -ATPase	2582	O-methyltransferase - like protein
2554	snap25a	2583	translation initiation factor eIF3 - like protein
2555	putative annexin	2584	No function assigned by TIGR
2556	putative protein	2585	unknown protein
2557	homeodomain transcription factor (ATHB-14)	2586	hypothetical protein
2558	heat shock protein, putative	2587	unknown protein
2559	peroxidase ATP23a	2588	unknown protein
2560	p68 RNA helicase, putative	2589	glycine-rich protein iike
2561	potassium transporter, putative	2590	putative disease resistance protein
2562	putative eukaryotic translation initiation factor 2 alpha subunit, eIF2	2591	putative Na <sup>+</sup> /Ca <sup>2+</sup> antiporter
2563	hypothetical protein	2592	putative hydroxymethylglutaryl-CoA lyase
2564	carnitine racemase like protein	2593	putative phosphoribosylaminoimidazole carboxylase
2565	No function assigned by TIGR	2594	SAR DNA-binding protein - like
		2595	response regulator, putative
		2596	fibrillin precursor-like protein
		2597	beta-ketoacyl-CoA synthase (FIDDLEHEAD)
		2598	lectin like protein
		2599	No function assigned by TIGR

TABLE 1 (cont)

2600	acidic endochitinase (dbj BAA21861.1)	2629	unknown protein
2601	unknown protein	2630	unknown protein
2602	hypothetical protein	2631	unknown protein
2603	predicted OR23 protein of unknown function	2632	nucleosome assembly protein I-like protein
2604	putative protein	2633	membrane channel like protein
2605	hypothetical protein	2634	anthocyanin2, putative
2606	glycerol-3-phosphate dehydrogenase	2635	TWIN SISTER OF FT (TSF)
2607	hypothetical protein	2636	putative myb-related transcription factor
2608	tat-binding protein, putative	2637	hypothetical protein
2609	putative protein	2638	putative RING zinc finger protein
2610	putative trehalose-6- phosphate phosphatase	2639	amino acid transport protein AAT1
2611	hypothetical protein	2640	putative protein
2612	putative flavonol 3-O- glucosyltransferase	2641	putative protein
2613	60S ribosomal protein L30	2642	xanthine dehydrogenase
2614	putative auxin-induced protein	2643	xanthine dehydrogenase - like protein
2615	putative nonspecific lipid- transfer protein precursor	2644	receptor protein kinase (IRK1), putative
2616	AtRer1A	2645	dehydrin-like protein
2617	putative aquaporin (tonoplast intrinsic protein gamma)	2646	unknown protein
2618	hypothetical protein	2647	aldehyde dehydrogenase homolog, putative
2619	putative alanine acetyl transferase	2648	Ran binding protein (AtRanBP1b)
2620	putative NADP-dependent glyceraldehyde-3- phosphate dehydrogenase	2649	putative squamosa-promoter binding protein
2621	putative DNA binding protein	2650	putative protein
2622	putative cystathionine gamma-synthase	2651	kinesin like protein
2623	unknown protein	2652	putative cellulose synthase
2624	malate oxidoreductase (malic enzyme)	2653	calmodulin (cam2)
2625	unknown protein	2654	fibrillarin - like protein
2626	cyclic nucleotide-gated cation channel	2655	putative transmembrane protein G5p
2627	glyoxalase II, putative	2656	putative peroxidase
2628	putative trypsin inhibitor	2657	putative SNF1-related protein kinase
		2658	glutathione S-transferase, putative
		2659	unknown protein
		2660	hypothetical protein
		2661	putative protein
		2662	phosphatidylinositol-4-phosphate 5-kinase isolog
		2663	putative tyrosine decarboxylase
		2664	unknown protein

TABLE 1 (cont)

2665	SGP1 monomeric G-protein (emb CAB54517.1)	2691	putative pyrophosphate-dependent phosphofructokinase alpha subunit
2666	putative serine carboxypeptidase II	2692	putative flavonol glucosyltransferase
2667	putative L5 ribosomal protein	2693	peroxidase ATP20a (emb CAA67338.1)
2668	putative glucosyltransferase	2694	TOPP8 serine/threonine protein phosphatase type one
2669	flavonoid 3,5-hydroxylase like protein	2695	auxin regulated protein IAA18, putative
2670	putative protein	2696	putative WRKY-type DNA binding protein
2671	putative protein	2697	putative glucan synthase
2672	putative Fe(II)/ascorbate oxidase	2698	squalene monooxygenase
2673	putative anthocyanin 5- aromatic acyltransferase	2699	putative proline-rich protein
2674	casein kinase I	2700	G2484-1 protein
2675	putative 2,3- bisphosphoglycerate- independent phosphoglycerate mutase	2701	heat shock protein 70 like protein
2676	putative glutathione S- transferase TSI-1	2702	unknown protein
2677	ATP-dependent RNA helicase	2703	unknown protein
2678	putative cytochrome P450		
2679	putative WD-40 repeat protein		
2680	No function assigned by TIGR		
2681	No function assigned by TIGR		
2682	putative protein		
2683	putative extensin		
2684	nodulin-26 - like protein		
2685	RNA helicase (emb CAA09212.1)		
2686	predicted protein of unknown function		
2687	putative berberine bridge enzyme		
2688	thioredoxin, putative		
2689	putative serine carboxypeptidase I		
2690	cytochrome P450-like protein		

TABLE 2

## ABIOTIC STRESS RESPONSIVE GENE REGULATORY SEQUENCES

SEQ ID NO:	REGULATORY REGION	SEQ ID NO:	REGULATORY REGION	SEQ ID NO:	REGULATORY REGION
1	2704	51	2753	101	2802
2	2705	52	2754	102	2803
3	2706	53	2755	103	2804
4	2707	54	2756	104	2805
5	2708	55	2757	105	2806
6	2709	56	2758	106	2807
7	2710	57	2759	107	2808
8	2711	58	2760	108	2809
9	2712	59	2761	109	2810
10	2713	60	2762	110	2811
11	2714	61	2763	111	2812
12	2715	62	2764	112	2813
13	2716	63	2765	113	2814
14	2717	64	2766	114	2815
15	2718	65	2767	115	2816
16	2719	66	2768	116	2817
17	2720	67	2769	117	2818
18	2721	68	2770	118	2819
19	2722	69	NONE	119	2820
20	2723	70	2771	120	2821
21	2724	71	2772	121	2822
22	2725	72	2773	122	2823
23	2726	73	2774	123	2824
24	2727	74	2775	124	2825
25	2728	75	2776	125	2826
26	2729	76	2777	126	2827
27	2730	77	2778	127	2828
28	2731	78	2779	128	2829
29	2732	79	2780	129	2830
30	2733	80	2781	130	2831
31	2734	81	2782	131	2832
32	2735	82	2783	132	2833
33	2736	83	2784	133	2834
34	2737	84	2785	134	2835
35	2738	85	2786	135	2836
36	2739	86	2787	136	2837
37	2740	87	2788	137	2838
38	2741	88	2789	138	2839
39	2742	89	2790	139	2840
40	2743	90	2791	140	2841
41	2744	91	2792	141	2842
42	2745	92	2793	142	2843
43	NONE	93	2794	143	2844
44	2746	94	2795	144	NONE
45	2747	95	2796	145	2845
46	2748	96	2797	146	2846
47	2749	97	2798	147	2847
48	2750	98	2799	148	2848
49	2751	99	2800	149	2849
50	2752	100	2801	150	2850

TABLE 2 (cont)

151	2851	205	2905	259	2959
152	2852	206	2906	260	2960
153	2853	207	2907	261	2961
154	2854	208	2908	262	2962
155	2855	209	2909	263	2963
156	2856	210	2910	264	2964
157	2857	211	2911	265	2965
158	2858	212	2912	266	2966
159	2859	213	2913	267	2967
160	2860	214	2914	268	2968
161	2861	215	2915	269	2969
162	2862	216	2916	270	2970
163	2863	217	2917	271	2971
164	2864	218	2918	272	2972
165	2865	219	2919	273	2973
166	2866	220	2920	274	2974
167	2867	221	2921	275	2975
168	2868	222	2922	276	2976
169	2869	223	2923	277	2977
170	2870	224	2924	278	2978
171	2871	225	2925	279	2979
172	2872	226	2926	280	2980
173	2873	227	2927	281	2981
174	2874	228	2928	282	2982
175	2875	229	2929	283	2983
176	2876	230	2930	284	2984
177	2877	231	2931	285	2985
178	2878	232	2932	286	2986
179	2879	233	2933	287	2987
180	2880	234	2934	288	2988
181	2881	235	2935	289	2989
182	2882	236	2936	290	2990
183	2883	237	2937	291	2991
184	2884	238	2938	292	2992
185	2885	239	2939	293	2993
186	2886	240	2940	294	2994
187	2887	241	2941	295	2995
188	2888	242	2942	296	2996
189	2889	243	2943	297	2997
190	2890	244	2944	298	2998
191	2891	245	2945	299	2999
192	2892	246	2946	300	3000
193	2893	247	2947	301	3001
194	2894	248	2948	302	3002
195	2895	249	2949	303	3003
196	2896	250	2950	304	NONE
197	2897	251	2951	305	3004
198	2898	252	2952	306	3005
199	2899	253	2953	307	3006
200	2900	254	2954	308	3007
201	2901	255	2955	309	3008
202	2902	256	2956	310	3009
203	2903	257	2957	311	3010
204	2904	258	2958	312	3011

TABLE 2 (cont)

313	3012	367	3066	421	3120
314	3013	368	3067	422	3121
315	3014	369	3068	423	3122
316	3015	370	3069	424	3123
317	3016	371	3070	425	3124
318	3017	372	3071	426	3125
319	3018	373	3072	427	3126
320	3019	374	3073	428	3127
321	3020	375	3074	429	3128
322	3021	376	3075	430	3129
323	3022	377	3076	431	3130
324	3023	378	3077	432	3131
325	3024	379	3078	433	3132
326	3025	380	3079	434	3133
327	3026	381	3080	435	3134
328	3027	382	3081	436	3135
329	3028	383	3082	437	3136
330	3029	384	3083	438	3137
331	3030	385	3084	439	3138
332	3031	386	3085	440	3139
333	3032	387	3086	441	3140
334	3033	388	3087	442	3141
335	3034	389	3088	443	3142
336	3035	390	3089	444	3143
337	3036	391	3090	445	3144
338	3037	392	3091	446	3145
339	3038	393	3092	447	3146
340	3039	394	3093	448	3147
341	3040	395	3094	449	3148
342	3041	396	3095	450	3149
343	3042	397	3096	451	3150
344	3043	398	3097	452	3151
345	3044	399	3098	453	3152
346	3045	400	3099	454	3153
347	3046	401	3100	455	3154
348	3047	402	3101	456	3155
349	3048	403	3102	457	3156
350	3049	404	3103	458	3157
351	3050	405	3104	459	3158
352	3051	406	3105	460	3159
353	3052	407	3106	461	3160
354	3053	408	3107	462	3161
355	3054	409	3108	463	3162
356	3055	410	3109	464	3163
357	3056	411	3110	465	3164
358	3057	412	3111	466	3165
359	3058	413	3112	467	3166
360	3059	414	3113	468	3167
361	3060	415	3114	469	3168
362	3061	416	3115	470	3169
363	3062	417	3116	471	3170
364	3063	418	3117	472	3171
365	3064	419	3118	473	3172
366	3065	420	3119	474	3173



TABLE 2 (cont)

475	3174	529	3228	583	3282
476	3175	530	3229	584	3283
477	3176	531	3230	585	3284
478	3177	532	3231	586	3285
479	3178	533	3232	587	3286
480	3179	534	3233	588	3287
481	3180	535	3234	589	3288
482	3181	536	3235	590	3289
483	3182	537	3236	591	3290
484	3183	538	3237	592	3291
485	3184	539	3238	593	3292
486	3185	540	3239	594	3293
487	3186	541	3240	595	3294
488	3187	542	3241	596	3295
489	3188	543	3242	597	3296
490	3189	544	3243	598	3297
491	3190	545	3244	599	3298
492	3191	546	3245	600	3299
493	3192	547	3246	601	3300
494	3193	548	3247	602	3301
495	3194	549	3248	603	3302
496	3195	550	3249	604	3303
497	3196	551	3250	605	3304
498	3197	552	3251	606	3305
499	3198	553	3252	607	3306
500	3199	554	3253	608	3307
501	3200	555	3254	609	3308
502	3201	556	3255	610	3309
503	3202	557	3256	611	3310
504	3203	558	3257	612	3311
505	3204	559	3258	613	3312
506	3205	560	3259	614	3313
507	3206	561	3260	615	3314
508	3207	562	3261	616	3315
509	3208	563	3262	617	3316
510	3209	564	3263	618	3317
511	3210	565	3264	619	3318
512	3211	566	3265	620	3319
513	3212	567	3266	621	3320
514	3213	568	3267	622	3321
515	3214	569	3268	623	3322
516	3215	570	3269	624	3323
517	3216	571	3270	625	3324
518	3217	572	3271	626	3325
519	3218	573	3272	627	3326
520	3219	574	3273	628	3327
521	3220	575	3274	629	3328
522	3221	576	3275	630	3329
523	3222	577	3276	631	3330
524	3223	578	3277	632	3331
525	3224	579	3278	633	3332
526	3225	580	3279	634	3333
527	3226	581	3280	635	3334
528	3227	582	3281	636	3335

TABLE 2 (cont)

637	3336	691	3390	745	3444
638	3337	692	3391	746	3445
639	3338	693	3392	747	3446
640	3339	694	3393	748	3447
641	3340	695	3394	749	3448
642	3341	696	3395	750	3449
643	3342	697	3396	751	3450
644	3343	698	3397	752	3451
645	3344	699	3398	753	3452
646	3345	700	3399	754	3453
647	3346	701	3400	755	3454
648	3347	702	3401	756	3455
649	3348	703	3402	757	3456
650	3349	704	3403	758	3457
651	3350	705	3404	759	3458
652	3351	706	3405	760	3459
653	3352	707	3406	761	3460
654	3353	708	3407	762	3461
655	3354	709	3408	763	3462
656	3355	710	3409	764	3463
657	3356	711	3410	765	3464
658	3357	712	3411	766	3465
659	3358	713	3412	767	3466
660	3359	714	3413	768	3467
661	3360	715	3414	769	3468
662	3361	716	3415	770	3469
663	3362	717	3416	771	3470
664	3363	718	3417	772	3471
665	3364	719	3418	773	3472
666	3365	720	3419	774	3473
667	3366	721	3420	775	3474
668	3367	722	3421	776	3475
669	3368	723	3422	777	3476
670	3369	724	3423	778	3477
671	3370	725	3424	779	3478
672	3371	726	3425	780	3479
673	3372	727	3426	781	3480
674	3373	728	3427	782	3481
675	3374	729	3428	783	3482
676	3375	730	3429	784	3483
677	3376	731	3430	785	3484
678	3377	732	3431	786	3485
679	3378	733	3432	787	3486
680	3379	734	3433	788	3487
681	3380	735	3434	789	3488
682	3381	736	3435	790	3489
683	3382	737	3436	791	3490
684	3383	738	3437	792	3491
685	3384	739	3438	793	3492
686	3385	740	3439	794	3493
687	3386	741	3440	795	3494
688	3387	742	3441	796	3495
689	3388	743	3442	797	3496
690	3389	744	3443	798	3497

TABLE 2 (cont)

799	3498	853	3552	907	3603
800	3499	854	3553	908	3604
801	3500	855	3554	909	3605
802	3501	856	3555	910	3606
803	3502	857	3556	911	3607
804	3503	858	3557	912	3608
805	3504	859	3558	913	3609
806	3505	860	3559	914	3610
807	3506	861	3560	915	3611
808	3507	862	3561	916	3612
809	3508	863	3562	917	3613
810	3509	864	3563	918	3614
811	3510	865	3564	919	3615
812	3511	866	3565	920	3616
813	3512	867	3566	921	3617
814	3513	868	3567	922	3618
815	3514	869	3568	923	3619
816	3515	870	3569	924	3620
817	3516	871	3570	925	3621
818	3517	872	3571	926	3622
819	3518	873	3572	927	3623
820	3519	874	3573	928	3624
821	3520	875	3574	929	3625
822	3521	876	3575	930	3626
823	3522	877	3576	931	3627
824	3523	878	3577	932	3628
825	3524	879	3578	933	3629
826	3525	880	3579	934	3630
827	3526	881	3580	935	NONE
828	3527	882	3581	936	3631
829	3528	883	3582	937	3632
830	3529	884	3583	938	3633
831	3530	885	3584	939	3634
832	3531	886	3585	940	3635
833	3532	887	NONE	941	3636
834	3533	888	3586	942	3637
835	3534	889	3587	943	3638
836	3535	890	3588	944	3639
837	3536	891	3589	945	3640
838	3537	892	3590	946	3641
839	3538	893	3591	947	3642
840	3539	894	NONE	948	3643
841	3540	895	NONE	949	3644
842	3541	896	3592	950	3645
843	3542	897	3593	951	3646
844	3543	898	3594	952	3647
845	3544	899	3595	953	3648
846	3545	900	3596	954	3649
847	3546	901	3597	955	3650
848	3547	902	3598	956	3651
849	3548	903	3599	957	3652
850	3549	904	3600	958	3653
851	3550	905	3601	959	3654
852	3551	906	3602	960	3655

TABLE 2 (cont)

961	3656	1015	3710	1069	3764
962	3657	1016	3711	1070	3765
963	3658	1017	3712	1071	3766
964	3659	1018	3713	1072	3767
965	3660	1019	3714	1073	3768
966	3661	1020	3715	1074	3769
967	3662	1021	3716	1075	3770
968	3663	1022	3717	1076	3771
969	3664	1023	3718	1077	3772
970	3665	1024	3719	1078	3773
971	3666	1025	3720	1079	3774
972	3667	1026	3721	1080	3775
973	3668	1027	3722	1081	3776
974	3669	1028	3723	1082	3777
975	3670	1029	3724	1083	3778
976	3671	1030	3725	1084	3779
977	3672	1031	3726	1085	3780
978	3673	1032	3727	1086	3781
979	3674	1033	3728	1087	NONE
980	3675	1034	3729	1088	3782
981	3676	1035	3730	1089	3783
982	3677	1036	3731	1090	3784
983	3678	1037	3732	1091	3785
984	3679	1038	3733	1092	3786
985	3680	1039	3734	1093	3787
986	3681	1040	3735	1094	3788
987	3682	1041	3736	1095	3789
988	3683	1042	3737	1096	3790
989	3684	1043	3738	1097	3791
990	3685	1044	3739	1098	3792
991	3686	1045	3740	1099	3793
992	3687	1046	3741	1100	3794
993	3688	1047	3742	1101	3795
994	3689	1048	3743	1102	3796
995	3690	1049	3744	1103	3797
996	3691	1050	3745	1104	3798
997	3692	1051	3746	1105	3799
998	3693	1052	3747	1106	3800
999	3694	1053	3748	1107	3801
1000	3695	1054	3749	1108	3802
1001	3696	1055	3750	1109	3803
1002	3697	1056	3751	1110	3804
1003	3698	1057	3752	1111	3805
1004	3699	1058	3753	1112	3806
1005	3700	1059	3754	1113	3807
1006	3701	1060	3755	1114	3808
1007	3702	1061	3756	1115	3809
1008	3703	1062	3757	1116	3810
1009	3704	1063	3758	1117	3811
1010	3705	1064	3759	1118	3812
1011	3706	1065	3760	1119	3813
1012	3707	1066	3761	1120	3814
1013	3708	1067	3762	1121	3815
1014	3709	1068	3763	1122	3816

TABLE 2 (cont)

1123	3817	1177	3871	1231	3925
1124	3818	1178	3872	1232	3926
1125	3819	1179	3873	1233	3927
1126	3820	1180	3874	1234	3928
1127	3821	1181	3875	1235	3929
1128	3822	1182	3876	1236	3930
1129	3823	1183	3877	1237	3931
1130	3824	1184	3878	1238	3932
1131	3825	1185	3879	1239	3933
1132	3826	1186	3880	1240	3934
1133	3827	1187	3881	1241	3935
1134	3828	1188	3882	1242	3936
1135	3829	1189	3883	1243	3937
1136	3830	1190	3884	1244	3938
1137	3831	1191	3885	1245	3939
1138	3832	1192	3886	1246	3940
1139	3833	1193	3887	1247	3941
1140	3834	1194	3888	1248	3942
1141	3835	1195	3889	1249	3943
1142	3836	1196	3890	1250	3944
1143	3837	1197	3891	1251	3945
1144	3838	1198	3892	1252	3946
1145	3839	1199	3893	1253	3947
1146	3840	1200	3894	1254	3948
1147	3841	1201	3895	1255	3949
1148	3842	1202	3896	1256	3950
1149	3843	1203	3897	1257	3951
1150	3844	1204	3898	1258	3952
1151	3845	1205	3899	1259	3953
1152	3846	1206	3900	1260	3954
1153	3847	1207	3901	1261	3955
1154	3848	1208	3902	1262	3956
1155	3849	1209	3903	1263	3957
1156	3850	1210	3904	1264	3958
1157	3851	1211	3905	1265	3959
1158	3852	1212	3906	1266	3960
1159	3853	1213	3907	1267	3961
1160	3854	1214	3908	1268	3962
1161	3855	1215	3909	1269	3963
1162	3856	1216	3910	1270	3964
1163	3857	1217	3911	1271	3965
1164	3858	1218	3912	1272	3966
1165	3859	1219	3913	1273	3967
1166	3860	1220	3914	1274	3968
1167	3861	1221	3915	1275	3969
1168	3862	1222	3916	1276	3970
1169	3863	1223	3917	1277	3971
1170	3864	1224	3918	1278	3972
1171	3865	1225	3919	1279	3973
1172	3866	1226	3920	1280	3974
1173	3867	1227	3921	1281	3975
1174	3868	1228	3922	1282	3976
1175	3869	1229	3923	1283	3977
1176	3870	1230	3924	1284	3978

TABLE 2 (cont)

1285	3979	1339	4032	1393	4086
1286	3980	1340	4033	1394	4087
1287	3981	1341	4034	1395	4088
1288	3982	1342	4035	1396	4089
1289	3983	1343	4036	1397	4090
1290	3984	1344	4037	1398	4091
1291	3985	1345	4038	1399	4092
1292	3986	1346	4039	1400	4093
1293	3987	1347	4040	1401	4094
1294	3988	1348	4041	1402	4095
1295	3989	1349	4042	1403	4096
1296	3990	1350	4043	1404	4097
1297	3991	1351	4044	1405	4098
1298	3992	1352	4045	1406	4099
1299	3993	1353	4046	1407	4100
1300	3994	1354	4047	1408	4101
1301	3995	1355	4048	1409	4102
1302	3996	1356	4049	1410	4103
1303	3997	1357	4050	1411	4104
1304	3998	1358	4051	1412	4105
1305	3999	1359	4052	1413	4106
1306	4000	1360	4053	1414	4107
1307	4001	1361	4054	1415	4108
1308	4002	1362	4055	1416	4109
1309	4003	1363	4056	1417	4110
1310	4004	1364	4057	1418	4111
1311	4005	1365	4058	1419	4112
1312	4006	1366	4059	1420	4113
1313	4007	1367	4060	1421	4114
1314	4008	1368	4061	1422	4115
1315	4009	1369	4062	1423	4116
1316	4010	1370	4063	1424	4117
1317	4011	1371	4064	1425	4118
1318	4012	1372	4065	1426	4119
1319	4013	1373	4066	1427	4120
1320	4014	1374	4067	1428	4121
1321	4015	1375	4068	1429	4122
1322	4016	1376	4069	1430	4123
1323	4017	1377	4070	1431	4124
1324	4018	1378	4071	1432	NONE
1325	4019	1379	4072	1433	4125
1326	4020	1380	4073	1434	4126
1327	4021	1381	4074	1435	4127
1328	4022	1382	4075	1436	4128
1329	4023	1383	4076	1437	4129
1330	NONE	1384	4077	1438	4130
1331	4024	1385	4078	1439	4131
1332	4025	1386	4079	1440	4132
1333	4026	1387	4080	1441	4133
1334	4027	1388	4081	1442	4134
1335	4028	1389	4082	1443	4135
1336	4029	1390	4083	1444	4136
1337	4030	1391	4084	1445	4137
1338	4031	1392	4085	1446	4138

TABLE 2 (cont)

1447	4139	1501	4193	1555	4247
1448	4140	1502	4194	1556	4248
1449	4141	1503	4195	1557	4249
1450	4142	1504	4196	1558	NONE
1451	4143	1505	4197	1559	4250
1452	4144	1506	4198	1560	4251
1453	4145	1507	4199	1561	4252
1454	4146	1508	4200	1562	4253
1455	4147	1509	4201	1563	4254
1456	4148	1510	4202	1564	4255
1457	4149	1511	4203	1565	4256
1458	4150	1512	4204	1566	4257
1459	4151	1513	4205	1567	4258
1460	4152	1514	4206	1568	4259
1461	4153	1515	4207	1569	4260
1462	4154	1516	4208	1570	4261
1463	4155	1517	4209	1571	4262
1464	4156	1518	4210	1572	4263
1465	4157	1519	4211	1573	4264
1466	4158	1520	4212	1574	4265
1467	4159	1521	4213	1575	4266
1468	4160	1522	4214	1576	4267
1469	4161	1523	4215	1577	4268
1470	4162	1524	4216	1578	4269
1471	4163	1525	4217	1579	4270
1472	4164	1526	4218	1580	4271
1473	4165	1527	4219	1581	4272
1474	4166	1528	4220	1582	4273
1475	4167	1529	4221	1583	4274
1476	4168	1530	4222	1584	4275
1477	4169	1531	4223	1585	4276
1478	4170	1532	4224	1586	4277
1479	4171	1533	4225	1587	4278
1480	4172	1534	4226	1588	4279
1481	4173	1535	4227	1589	4280
1482	4174	1536	4228	1590	4281
1483	4175	1537	4229	1591	4282
1484	4176	1538	4230	1592	4283
1485	4177	1539	4231	1593	4284
1486	4178	1540	4232	1594	4285
1487	4179	1541	4233	1595	4286
1488	4180	1542	4234	1596	4287
1489	4181	1543	4235	1597	4288
1490	4182	1544	4236	1598	4289
1491	4183	1545	4237	1599	4290
1492	4184	1546	4238	1600	4291
1493	4185	1547	4239	1601	4292
1494	4186	1548	4240	1602	4293
1495	4187	1549	4241	1603	4294
1496	4188	1550	4242	1604	4295
1497	4189	1551	4243	1605	4296
1498	4190	1552	4244	1606	4297
1499	4191	1553	4245	1607	4298
1500	4192	1554	4246	1608	4299

TABLE 2 (cont)

1609	4300	1663	NONE	1717	4406
1610	4301	1664	4354	1718	4407
1611	4302	1665	4355	1719	4408
1612	4303	1666	4356	1720	4409
1613	4304	1667	4357	1721	4410
1614	4305	1668	4358	1722	4411
1615	4306	1669	4359	1723	4412
1616	4307	1670	4360	1724	4413
1617	4308	1671	4361	1725	4414
1618	4309	1672	4362	1726	4415
1619	4310	1673	4363	1727	4416
1620	4311	1674	4364	1728	4417
1621	4312	1675	4365	1729	4418
1622	4313	1676	4366	1730	4419
1623	4314	1677	4367	1731	4420
1624	4315	1678	4368	1732	4421
1625	4316	1679	4369	1733	4422
1626	4317	1680	4370	1734	4423
1627	4318	1681	4371	1735	4424
1628	4319	1682	4372	1736	4425
1629	4320	1683	4373	1737	4426
1630	4321	1684	4374	1738	4427
1631	4322	1685	4375	1739	4428
1632	4323	1686	4376	1740	4429
1633	4324	1687	4377	1741	4430
1634	4325	1688	4378	1742	4431
1635	4326	1689	4379	1743	4432
1636	4327	1690	4380	1744	4433
1637	4328	1691	4381	1745	4434
1638	4329	1692	4382	1746	4435
1639	4330	1693	4383	1747	4436
1640	4331	1694	4384	1748	4437
1641	4332	1695	4385	1749	4438
1642	4333	1696	4386	1750	4439
1643	4334	1697	4387	1751	4440
1644	4335	1698	4388	1752	4441
1645	4336	1699	4389	1753	4442
1646	4337	1700	4390	1754	4443
1647	4338	1701	4391	1755	4444
1648	4339	1702	4392	1756	4445
1649	4340	1703	4393	1757	4446
1650	4341	1704	4394	1758	4447
1651	4342	1705	4395	1759	4448
1652	4343	1706	4396	1760	4449
1653	4344	1707	4397	1761	4450
1654	4345	1708	4398	1762	4451
1655	4346	1709	4399	1763	4452
1656	4347	1710	4400	1764	4453
1657	4348	1711	4401	1765	4454
1658	4349	1712	NONE	1766	4455
1659	4350	1713	4402	1767	4456
1660	4351	1714	4403	1768	4457
1661	4352	1715	4404	1769	4458
1662	4353	1716	4405	1770	4459



TABLE 2 (cont)

1771	4460	1825	4512	1879	4566
1772	4461	1826	4513	1880	4567
1773	4462	1827	4514	1881	4568
1774	4463	1828	4515	1882	4569
1775	4464	1829	4516	1883	4570
1776	4465	1830	4517	1884	4571
1777	4466	1831	4518	1885	4572
1778	4467	1832	4519	1886	4573
1779	4468	1833	4520	1887	4574
1780	4469	1834	4521	1888	4575
1781	4470	1835	4522	1889	4576
1782	4471	1836	4523	1890	4577
1783	4472	1837	4524	1891	4578
1784	NONE	1838	4525	1892	4579
1785	4473	1839	4526	1893	4580
1786	4474	1840	4527	1894	4581
1787	4475	1841	4528	1895	4582
1788	4476	1842	4529	1896	4583
1789	4477	1843	4530	1897	NONE
1790	4478	1844	4531	1898	4584
1791	4479	1845	4532	1899	4585
1792	4480	1846	4533	1900	4586
1793	4481	1847	4534	1901	4587
1794	4482	1848	4535	1902	4588
1795	4483	1849	4536	1903	4589
1796	4484	1850	4537	1904	4590
1797	4485	1851	4538	1905	4591
1798	4486	1852	4539	1906	4592
1799	4487	1853	4540	1907	NONE
1800	4488	1854	4541	1908	4593
1801	4489	1855	4542	1909	4594
1802	4490	1856	4543	1910	4595
1803	NONE	1857	4544	1911	4596
1804	4491	1858	4545	1912	4597
1805	4492	1859	4546	1913	4598
1806	4493	1860	4547	1914	4599
1807	4494	1861	4548	1915	4600
1808	4495	1862	4549	1916	4601
1809	4496	1863	4550	1917	4602
1810	4497	1864	4551	1918	4603
1811	4498	1865	4552	1919	4604
1812	4499	1866	4553	1920	4605
1813	4500	1867	4554	1921	4606
1814	4501	1868	4555	1922	4607
1815	4502	1869	4556	1923	4608
1816	4503	1870	4557	1924	4609
1817	4504	1871	4558	1925	4610
1818	4505	1872	4559	1926	4611
1819	4506	1873	4560	1927	4612
1820	4507	1874	4561	1928	4613
1821	4508	1875	4562	1929	4614
1822	4509	1876	4563	1930	4615
1823	4510	1877	4564	1931	4616
1824	4511	1878	4565	1932	4617

TABLE 2 (cont)

1933	4618	1987	4672	2041	4725
1934	4619	1988	4673	2042	4726
1935	4620	1989	4674	2043	4727
1936	4621	1990	4675	2044	4728
1937	4622	1991	4676	2045	4729
1938	4623	1992	4677	2046	4730
1939	4624	1993	4678	2047	4731
1940	4625	1994	4679	2048	4732
1941	4626	1995	4680	2049	4733
1942	4627	1996	4681	2050	4734
1943	4628	1997	4682	2051	4735
1944	4629	1998	4683	2052	4736
1945	4630	1999	4684	2053	4737
1946	4631	2000	4685	2054	4738
1947	4632	2001	4686	2055	4739
1948	4633	2002	4687	2056	4740
1949	4634	2003	4688	2057	4741
1950	4635	2004	4689	2058	4742
1951	4636	2005	4690	2059	4743
1952	4637	2006	4691	2060	4744
1953	4638	2007	4692	2061	4745
1954	4639	2008	4693	2062	4746
1955	4640	2009	4694	2063	4747
1956	4641	2010	4695	2064	4748
1957	4642	2011	4696	2065	4749
1958	4643	2012	4697	2066	4750
1959	4644	2013	4698	2067	4751
1960	4645	2014	4699	2068	4752
1961	4646	2015	4700	2069	4753
1962	4647	2016	4701	2070	4754
1963	4648	2017	4702	2071	4755
1964	4649	2018	4703	2072	4756
1965	4650	2019	4704	2073	4757
1966	4651	2020	4705	2074	4758
1967	4652	2021	4706	2075	4759
1968	4653	2022	4707	2076	4760
1969	4654	2023	4708	2077	4761
1970	4655	2024	4709	2078	4762
1971	4656	2025	4710	2079	4763
1972	4657	2026	4711	2080	4764
1973	4658	2027	4712	2081	4765
1974	4659	2028	4713	2082	4766
1975	4660	2029	4714	2083	4767
1976	4661	2030	NONE	2084	4768
1977	4662	2031	4715	2085	4769
1978	4663	2032	4716	2086	4770
1979	4664	2033	4717	2087	4771
1980	4665	2034	4718	2088	4772
1981	4666	2035	4719	2089	4773
1982	4667	2036	4720	2090	4774
1983	4668	2037	4721	2091	4775
1984	4669	2038	4722	2092	4776
1985	4670	2039	4723	2093	4777
1986	4671	2040	4724	2094	4778

TABLE 2 (cont)

2095	4779	2149	4833	2203	4886
2096	4780	2150	4834	2204	4887
2097	4781	2151	NONE	2205	4888
2098	4782	2152	4835	2206	4889
2099	4783	2153	4836	2207	4890
2100	4784	2154	4837	2208	4891
2101	4785	2155	4838	2209	4892
2102	4786	2156	4839	2210	4893
2103	4787	2157	4840	2211	4894
2104	4788	2158	4841	2212	4895
2105	4789	2159	4842	2213	4896
2106	4790	2160	4843	2214	4897
2107	4791	2161	4844	2215	4898
2108	4792	2162	4845	2216	4899
2109	4793	2163	4846	2217	4900
2110	4794	2164	4847	2218	4901
2111	4795	2165	4848	2219	4902
2112	4796	2166	4849	2220	4903
2113	4797	2167	4850	2221	4904
2114	4798	2168	4851	2222	4905
2115	4799	2169	4852	2223	4906
2116	4800	2170	4853	2224	4907
2117	4801	2171	4854	2225	4908
2118	4802	2172	4855	2226	4909
2119	4803	2173	4856	2227	4910
2120	4804	2174	4857	2228	4911
2121	4805	2175	4858	2229	4912
2122	4806	2176	4859	2230	4913
2123	4807	2177	4860	2231	4914
2124	4808	2178	4861	2232	4915
2125	4809	2179	4862	2233	4916
2126	4810	2180	4863	2234	4917
2127	4811	2181	4864	2235	4918
2128	4812	2182	4865	2236	4919
2129	4813	2183	4866	2237	4920
2130	4814	2184	4867	2238	4921
2131	4815	2185	4868	2239	4922
2132	4816	2186	4869	2240	4923
2133	4817	2187	4870	2241	4924
2134	4818	2188	4871	2242	4925
2135	4819	2189	4872	2243	4926
2136	4820	2190	4873	2244	4927
2137	4821	2191	4874	2245	4928
2138	4822	2192	4875	2246	4929
2139	4823	2193	4876	2247	4930
2140	4824	2194	4877	2248	NONE
2141	4825	2195	4878	2249	4931
2142	4826	2196	4879	2250	4932
2143	4827	2197	4880	2251	4933
2144	4828	2198	4881	2252	4934
2145	4829	2199	4882	2253	4935
2146	4830	2200	4883	2254	4936
2147	4831	2201	4884	2255	4937
2148	4832	2202	4885	2256	4938

TABLE 2 (cont)

2257	4939	2311	4993	2365	5046
2258	4940	2312	4994	2366	5047
2259	4941	2313	4995	2367	5048
2260	4942	2314	4996	2368	5049
2261	4943	2315	4997	2369	5050
2262	4944	2316	4998	2370	5051
2263	4945	2317	4999	2371	NONE
2264	4946	2318	5000	2372	5052
2265	4947	2319	5001	2373	5053
2266	4948	2320	5002	2374	5054
2267	4949	2321	5003	2375	5055
2268	4950	2322	5004	2376	5056
2269	4951	2323	5005	2377	5057
2270	4952	2324	5006	2378	5058
2271	4953	2325	5007	2379	5059
2272	4954	2326	5008	2380	5060
2273	4955	2327	5009	2381	5061
2274	4956	2328	5010	2382	5062
2275	4957	2329	5011	2383	5063
2276	4958	2330	5012	2384	5064
2277	4959	2331	5013	2385	5065
2278	4960	2332	5014	2386	5066
2279	4961	2333	5015	2387	5067
2280	4962	2334	5016	2388	5068
2281	4963	2335	5017	2389	5069
2282	4964	2336	5018	2390	5070
2283	4965	2337	5019	2391	5071
2284	4966	2338	5020	2392	5072
2285	4967	2339	5021	2393	5073
2286	4968	2340	NONE	2394	5074
2287	4969	2341	5022	2395	5075
2288	4970	2342	5023	2396	5076
2289	4971	2343	5024	2397	5077
2290	4972	2344	5025	2398	5078
2291	4973	2345	5026	2399	5079
2292	4974	2346	5027	2400	5080
2293	4975	2347	5028	2401	5081
2294	4976	2348	5029	2402	5082
2295	4977	2349	5030	2403	5083
2296	4978	2350	5031	2404	5084
2297	4979	2351	5032	2405	5085
2298	4980	2352	5033	2406	5086
2299	4981	2353	5034	2407	5087
2300	4982	2354	5035	2408	5088
2301	4983	2355	5036	2409	5089
2302	4984	2356	5037	2410	5090
2303	4985	2357	5038	2411	5091
2304	4986	2358	5039	2412	5092
2305	4987	2359	5040	2413	5093
2306	4988	2360	5041	2414	5094
2307	4989	2361	5042	2415	5095
2308	4990	2362	5043	2416	5096
2309	4991	2363	5044	2417	5097
2310	4992	2364	5045	2418	5098

TABLE 2 (cont)

2419	5099	2473	5151	2527	5205
2420	5100	2474	5152	2528	5206
2421	5101	2475	5153	2529	5207
2422	5102	2476	5154	2530	5208
2423	5103	2477	5155	2531	5209
2424	5104	2478	5156	2532	5210
2425	5105	2479	5157	2533	5211
2426	5106	2480	5158	2534	5212
2427	5107	2481	5159	2535	5213
2428	5108	2482	5160	2536	5214
2429	5109	2483	5161	2537	5215
2430	5110	2484	5162	2538	5216
2431	5111	2485	5163	2539	5217
2432	5112	2486	5164	2540	5218
2433	5113	2487	5165	2541	5219
2434	5114	2488	5166	2542	5220
2435	5115	2489	5167	2543	5221
2436	5116	2490	5168	2544	5222
2437	5117	2491	5169	2545	5223
2438	5118	2492	5170	2546	5224
2439	5119	2493	5171	2547	5225
2440	5120	2494	5172	2548	5226
2441	5121	2495	5173	2549	5227
2442	5122	2496	5174	2550	5228
2443	NONE	2497	5175	2551	5229
2444	5123	2498	5176	2552	5230
2445	5124	2499	5177	2553	5231
2446	5125	2500	5178	2554	5232
2447	5126	2501	5179	2555	5233
2448	5127	2502	5180	2556	5234
2449	5128	2503	5181	2557	5235
2450	5129	2504	5182	2558	5236
2451	5130	2505	5183	2559	5237
2452	5131	2506	5184	2560	5238
2453	5132	2507	5185	2561	5239
2454	5133	2508	5186	2562	5240
2455	5134	2509	5187	2563	5241
2456	5135	2510	5188	2564	5242
2457	5136	2511	5189	2565	5243
2458	5137	2512	5190	2566	5244
2459	5138	2513	5191	2567	5245
2460	5139	2514	5192	2568	5246
2461	5140	2515	5193	2569	5247
2462	5141	2516	5194	2570	5248
2463	5142	2517	5195	2571	5249
2464	5143	2518	5196	2572	5250
2465	5144	2519	5197	2573	5251
2466	5145	2520	5198	2574	5252
2467	5146	2521	5199	2575	5253
2468	5147	2522	5200	2576	5254
2469	NONE	2523	5201	2577	5255
2470	5148	2524	5202	2578	5256
2471	5149	2525	5203	2579	5257
2472	5150	2526	5204	2580	5258

TABLE 2 (cont)

2581	5259	2635	5312	2689	5365
2582	5260	2636	5313	2690	5366
2583	5261	2637	5314	2691	5367
2584	5262	2638	5315	2692	5368
2585	5263	2639	5316	2693	5369
2586	5264	2640	5317	2694	5370
2587	5265	2641	5318	2695	5371
2588	5266	2642	5319	2696	5372
2589	5267	2643	5320	2697	5373
2590	5268	2644	5321	2698	5374
2591	5269	2645	5322	2699	5375
2592	5270	2646	5323	2700	5376
2593	5271	2647	5324	2701	5377
2594	5272	2648	5325	2702	5378
2595	5273	2649	5326	2703	5379
2596	5274	2650	5327		
2597	5275	2651	5328		
2598	5276	2652	5329		
2599	NONE	2653	5330		
2600	5277	2654	5331		
2601	5278	2655	5332		
2602	5279	2656	5333		
2603	5280	2657	5334		
2604	5281	2658	5335		
2605	5282	2659	5336		
2606	5283	2660	5337		
2607	5284	2661	5338		
2608	5285	2662	5339		
2609	5286	2663	5340		
2610	5287	2664	5341		
2611	5288	2665	5342		
2612	5289	2666	5343		
2613	5290	2667	5344		
2614	5291	2668	5345		
2615	5292	2669	5346		
2616	5293	2670	5347		
2617	5294	2671	5348		
2618	5295	2672	5349		
2619	5296	2673	5350		
2620	5297	2674	5351		
2621	5298	2675	5352		
2622	5299	2676	5353		
2623	5300	2677	5354		
2624	5301	2678	5355		
2625	5302	2679	5356		
2626	5303	2680	5357		
2627	5304	2681	NONE		
2628	5305	2682	5358		
2629	5306	2683	5359		
2630	5307	2684	5360		
2631	5308	2685	5361		
2632	5309	2686	5362		
2633	5310	2687	5363		
2634	5311	2688	5364		

TABLE 3

## COLD RESPONSIVE SEQUENCES

SEQ ID NO:	AFFYMETRIX ID NO:	SEQ ID NO:	AFFYMETRIX ID NO:	SEQ ID NO:	AFFYMETRIX ID NO:
1	11991_G_AT	50	12269_S_AT	98	12550_S_AT
2	11992_AT	51	12270_AT		17103_S_AT
3	11997_AT	52	12284_AT	99	12552_AT
4	11998_AT	53	12287_S_AT	100	12555_S_AT
5	12001_AT		17570_G_AT	101	12576_S_AT
6	12006_S_AT	54	12293_AT	102	12581_S_AT
7	12007_AT	55	12294_S_AT		16645_S_AT
8	12009_AT	56	12300_AT	103	12587_AT
9	12018_AT	57	12307_AT	104	12597_AT
10	12022_AT	58	12312_AT	105	12602_AT
11	12026_AT	59	12315_AT	106	12610_AT
12	12031_AT	60	12324_I_AT	107	12631_AT
13	12047_AT	61	12331_S_AT	108	12646_AT
14	12051_AT	62	12336_AT	109	12649_AT
15	12052_AT	63	12344_AT	110	12650_AT
16	12053_AT	64	12348_AT	111	12653_AT
17	12060_AT	65	12353_AT	112	12661_AT
18	12072_AT	66	12359_S_AT	113	12666_AT
19	12074_AT	67	12372_AT	114	12674_AT
20	12102_AT	68	12374_I_AT	115	12675_S_AT
21	12112_AT		12726_F_AT	116	12678_I_AT
22	12117_AT	69	12390_AT	117	12681_S_AT
23	12125_AT	70	12395_S_AT	118	12688_AT
24	12130_AT	71	12405_AT	119	12702_AT
25	12143_AT	72	12408_AT	120	12705_F_AT
26	12145_S_AT	73	12410_G_AT	121	12736_F_AT
27	12149_AT	74	12419_AT	122	12737_F_AT
28	12156_AT	75	12427_AT	123	12758_AT
29	12163_AT	76	12431_AT	124	12760_G_AT
30	12166_I_AT	77	12436_AT	125	12762_R_AT
31	12167_AT	78	12438_AT	126	12764_F_AT
32	12169_I_AT	79	12443_S_AT	127	12766_AT
33	12175_AT	80	12447_AT		15115_F_AT
34	12176_AT	81	12450_S_AT	128	12767_AT
35	12179_AT	82	12452_AT	129	12768_AT
36	12187_AT	83	12474_AT	130	12772_AT
	15920_I_AT	84	12477_AT	131	12773_AT
37	12195_AT	85	12491_AT	132	12776_AT
38	12196_AT	86	12497_AT	133	12788_AT
39	12198_AT	87	12500_S_AT	134	12793_AT
40	12200_AT	88	12503_AT	135	12794_AT
41	12202_AT	89	12515_AT	136	12802_AT
42	12214_G_AT	90	12516_S_AT	137	12809_G_AT
43	12219_AT	91	12523_AT	138	12812_AT
44	12224_AT	92	12526_AT	139	12815_AT
45	12226_AT	93	12527_AT	140	12816_AT
46	12233_AT	94	12532_AT	141	12818_AT
47	12240_AT	95	12534_G_AT	142	12824_S_AT
48	12253_G_AT	96	12544_AT	143	12828_S_AT
49	12256_AT	97	12549_S_AT	144	12842_S_AT

TABLE 3 (cont)

145	12846_S_AT	194	13086_R_AT	238	13285_S_AT
146	12858_AT	195	13087_AT	239	13288_S_AT
147	12860_S_AT	196	13090_AT		17043_S_AT
148	12861_S_AT	197	13092_S_AT	240	13292_S_AT
149	12881_S_AT		16950_S_AT	241	13296_S_AT
	17600_S_AT	198	13098_AT	242	13297_S_AT
150	12889_S_AT	199	13100_AT	243	13299_S_AT
151	12901_S_AT	200	13103_AT		15166_S_AT
152	12902_AT	201	13105_AT	244	13332_AT
153	12904_S_AT	202	13107_S_AT	245	13347_AT
154	12905_S_AT	203	13108_AT	246	13351_AT
155	12908_S_AT	204	13109_AT	247	13352_AT
156	12910_S_AT	205	13114_AT	248	13355_AT
	16385_S_AT	206	13118_F_AT	249	13404_AT
157	12914_S_AT	207	13119_AT	250	13422_AT
	15783_S_AT	208	13120_AT	251	13459_AT
	17645_S_AT	209	13123_AT	252	13460_AT
158	12916_S_AT	210	13128_AT	253	13461_S_AT
159	12923_S_AT	211	13133_S_AT	254	13467_AT
160	12926_S_AT		17430_S_AT	255	13488_AT
161	12927_S_AT	212	13135_S_AT	256	13523_S_AT
162	12931_S_AT	213	13139_AT	257	13529_AT
163	12937_R_AT	214	13140_AT	258	13539_I_AT
164	12941_G_AT	215	13143_AT		14631_S_AT
165	12942_AT	216	13151_G_AT	259	13541_AT
166	12947_AT	217	13160_AT	260	13542_AT
167	12949_AT	218	13161_AT	261	13545_S_AT
168	12953_AT	219	13162_AT	262	13552_AT
169	12956_I_AT	220	13165_AT	263	13556_I_AT
170	12959_AT	221	13166_AT	264	13561_AT
171	12966_S_AT	222	13167_AT	265	13563_S_AT
172	12975_AT	223	13179_AT	266	13567_AT
173	12983_AT	224	13181_AT	267	13568_AT
174	12984_AT	225	13185_AT	268	13571_AT
175	12987_S_AT	226	13193_S_AT	269	13575_AT
176	12994_S_AT	227	13213_S_AT	270	13576_AT
177	13002_AT		16004_S_AT	271	13583_AT
178	13009_I_AT	228	13219_S_AT	272	13598_AT
179	13011_AT		20288_G_AT	273	13601_AT
180	13018_AT	229	13220_S_AT	274	13604_AT
181	13023_AT		13221_AT	275	13613_AT
182	13024_AT		18929_S_AT	276	13616_S_AT
183	13034_S_AT	230	13233_AT		16544_S_AT
184	13046_G_AT		14301_S_AT	277	13617_AT
185	13048_S_AT	231	13243_R_AT	278	13618_S_AT
	13495_S_AT	232	13254_S_AT	279	13619_AT
186	13054_AT	233	13260_S_AT	280	13621_G_AT
187	13067_S_AT		15660_S_AT	281	13623_R_AT
188	13068_AT	234	13273_S_AT	282	13629_S_AT
189	13073_S_AT		16105_S_AT	283	13631_AT
190	13078_S_AT	235	13274_S_AT	284	13635_AT
191	13079_AT		17077_S_AT	285	13646_AT
192	13081_S_AT	236	13276_S_AT	286	13650_AT
193	13083_AT	237	13278_F_AT	287	13653_AT



TABLE 3 (cont)

288	13655_AT	332	13989_AT	383	14393_AT
289	13656_AT		20674_S_AT	384	14421_AT
290	13657_AT	333	14010_AT	385	14436_AT
291	13666_S_AT	334	14013_AT	386	14448_AT
	17083_S_AT	335	14014_AT	387	14450_AT
292	13667_S_AT	336	14019_AT	388	14454_AT
293	13669_S_AT	337	14021_R_AT	389	14459_AT
	17074_S_AT	338	14025_S_AT	390	14478_AT
294	13670_S_AT		18909_S_AT	391	14482_AT
	15206_S_AT	339	14027_AT	392	14485_AT
295	13671_S_AT	340	14030_AT	393	14492_S_AT
	16805_S_AT	341	14044_AT	394	14505_AT
296	13678_S_AT	342	14048_AT	395	14510_AT
297	13688_S_AT	343	14056_AT	396	14511_AT
298	13690_S_AT	344	14057_AT	397	14517_AT
	16065_S_AT	345	14058_AT	398	14519_AT
299	13691_S_AT	346	14059_AT	399	14525_S_AT
	16117_S_AT	347	14061_AT	400	14527_AT
300	13692_S_AT	348	14068_S_AT	401	14534_S_AT
	16118_S_AT	349	14072_AT	402	14538_R_AT
301	13700_AT	350	14073_AT	403	14554_AT
302	13704_S_AT	351	14074_AT	404	14558_AT
303	13714_AT	352	14084_AT	405	14559_S_AT
304	13715_AT	353	14095_S_AT	406	14566_AT
305	13724_AT	354	14100_AT	407	14572_AT
306	13748_AT	355	14101_AT	408	14579_AT
307	13759_AT	356	14103_AT	409	14587_AT
308	13767_AT	357	14105_AT	410	14591_AT
309	13785_AT	358	14106_AT	411	14595_AT
310	13803_AT	359	14121_AT	412	14602_AT
311	13850_I_AT	360	14129_S_AT	413	14603_AT
312	13876_AT	361	14133_S_AT	414	14605_AT
313	13880_S_AT	362	14143_AT	415	14620_S_AT
314	13883_AT	363	14145_AT	416	14626_S_AT
315	13887_S_AT	364	14148_AT	417	14630_S_AT
316	13895_AT	365	14186_AT		16559_S_AT
317	13904_S_AT	366	14194_AT	418	14637_S_AT
	18722_S_AT	367	14196_AT		17122_S_AT
318	13906_S_AT	368	14223_AT	419	14642_F_AT
319	13908_S_AT	369	14234_AT	420	14650_S_AT
	18597_AT	370	14236_AT		15150_S_AT
320	13923_AT	371	14251_F_AT	421	14654_S_AT
321	13927_AT	372	14252_F_AT	422	14667_S_AT
322	13932_AT	373	14270_AT		18299_S_AT
323	13935_AT	374	14298_G_AT	423	14669_S_AT
324	13940_AT		17581_G_AT		16136_S_AT
325	13949_S_AT	375	14303_S_AT	424	14672_S_AT
326	13954_G_AT	376	14312_AT	425	14679_S_AT
327	13971_S_AT	377	14316_AT	426	14682_I_AT
328	13973_AT	378	14339_AT	427	14689_AT
329	13983_AT	379	14366_AT	428	14697_G_AT
330	13985_S_AT	380	14369_AT		16902_AT
331	13987_S_AT	381	14388_AT	429	14701_S_AT
	18738_F_AT	382	14392_G_AT		14734_S_AT

TABLE 3 (cont)

430	14703_AT	483	15130_S_AT	534	15489_AT
431	14711_S_AT	484	15131_S_AT	535	15490_AT
432	14712_S_AT	485	15132_S_AT	536	15503_AT
	20530_S_AT		17585_S_AT	537	15505_AT
433	14713_S_AT	486	15139_S_AT	538	15510_R_AT
434	14715_S_AT	487	15143_S_AT	539	15512_AT
435	14728_S_AT	488	15146_S_AT	540	15514_AT
436	14731_S_AT	489	15159_S_AT	541	15515_R_AT
437	14781_AT		15160_S_AT	542	15517_S_AT
438	14797_S_AT	490	15162_S_AT	543	15518_AT
439	14800_AT	491	15167_S_AT	544	15529_AT
440	14809_AT	492	15171_S_AT	545	15534_F_AT
441	14843_AT	493	15174_F_AT	546	15538_AT
442	14847_AT	494	15178_S_AT	547	15541_AT
443	14872_AT	495	15185_S_AT	548	15543_AT
444	14886_AT		18023_S_AT	549	15544_AT
445	14896_AT	496	15188_S_AT	550	15551_AT
446	14900_AT	497	15193_S_AT	551	15574_S_AT
447	14908_AT	498	15196_S_AT	552	15576_S_AT
448	14912_AT	499	15197_S_AT	553	15577_S_AT
449	14914_AT	500	15201_F_AT	554	15578_S_AT
450	14942_AT	501	15213_S_AT	555	15583_S_AT
451	14945_AT	502	15243_AT	556	15588_S_AT
452	14955_AT	503	15256_AT	557	15595_S_AT
453	14957_S_AT	504	15270_AT	558	15600_S_AT
454	14958_AT	505	15319_AT	559	15602_F_AT
455	14965_AT	506	15325_AT	560	15608_S_AT
456	14974_AT	507	15337_AT	561	15613_S_AT
457	14980_AT	508	15341_AT	562	15616_S_AT
458	14981_AT	509	15343_AT	563	15618_S_AT
459	14984_S_AT	510	15348_AT	564	15620_S_AT
460	14995_AT	511	15350_AT	565	15627_S_AT
461	15004_AT	512	15355_S_AT	566	15634_S_AT
462	15009_AT	513	15367_AT		16125_S_AT
463	15010_AT	514	15372_AT		18046_S_AT
464	15024_AT	515	15379_AT	567	15637_S_AT
465	15026_AT	516	15381_AT	568	15639_S_AT
466	15036_R_AT	517	15383_AT	569	15642_S_AT
467	15054_AT	518	15384_AT	570	15643_S_AT
468	15056_AT	519	15385_AT	571	15651_F_AT
469	15057_AT	520	15387_AT	572	15652_S_AT
470	15066_AT	521	15410_AT	573	15665_S_AT
471	15073_AT	522	15417_S_AT	574	15667_S_AT
472	15081_AT	523	15422_AT		18610_S_AT
473	15083_AT	524	15423_AT	575	15668_S_AT
474	15091_AT	525	15431_AT	576	15671_S_AT
475	15097_S_AT	526	15433_AT	577	15675_S_AT
476	15101_S_AT	527	15452_AT	578	15679_S_AT
477	15102_S_AT	528	15464_AT	579	15685_S_AT
478	15107_S_AT	529	15468_AT	580	15687_F_AT
479	15112_S_AT	530	15471_AT	581	15688_S_AT
480	15116_F_AT	531	15472_AT	582	15689_S_AT
481	15118_S_AT	532	15475_S_AT	583	15692_S_AT
482	15122_S_AT	533	15485_AT	584	15694_S_AT

TABLE 3 (cont)

585	15712_S_AT	634	16089_S_AT	686	16496_S_AT
586	15808_AT	635	16090_S_AT	687	16499_AT
587	15845_AT	636	16102_S_AT	688	16510_AT
588	15848_AT	637	16103_S_AT	689	16511_AT
589	15850_AT	638	16108_S_AT	690	16512_S_AT
	20406_G_AT	639	16112_S_AT		18085_R_AT
590	15858_AT	640	16134_S_AT	691	16514_AT
591	15862_AT	641	16137_S_AT	692	16516_AT
592	15868_AT	642	16138_S_AT	693	16517_AT
593	15878_AT	643	16140_S_AT	694	16526_AT
594	15894_AT	644	16143_S_AT	695	16528_AT
595	15900_AT	645	16145_S_AT	696	16531_S_AT
596	15901_AT	646	16148_S_AT	697	16535_S_AT
597	15902_AT	647	16151_S_AT	698	16537_S_AT
598	15912_AT	648	16155_S_AT	699	16538_S_AT
599	15913_AT	649	16158_F_AT	700	16543_S_AT
600	15928_AT	650	16160_F_AT	701	16550_S_AT
601	15940_AT	651	16162_S_AT	702	16554_S_AT
602	15941_AT	652	16168_S_AT	703	16567_S_AT
603	15945_AT	653	16169_S_AT	704	16571_S_AT
604	15948_S_AT	654	16171_S_AT	705	16576_F_AT
605	15956_AT	655	16172_S_AT	706	16577_S_AT
606	15960_AT	656	16184_AT	707	16579_S_AT
	16466_S_AT	657	16192_AT	708	16580_S_AT
607	15976_AT	658	16222_AT	709	16583_S_AT
608	15978_AT	659	16242_AT	710	16584_S_AT
609	15986_S_AT	660	16244_AT		18706_S_AT
610	15990_AT	661	16250_AT	711	16593_S_AT
611	16009_S_AT	662	16286_AT	712	16595_S_AT
612	16015_AT	663	16288_AT	713	16598_S_AT
613	16019_AT	664	16294_S_AT	714	16604_S_AT
614	16024_AT	665	16296_AT	715	16605_S_AT
615	16034_AT	666	16297_AT	716	16610_S_AT
616	16036_I_AT	667	16325_AT	717	16611_S_AT
	18729_AT	668	16346_S_AT	718	16614_S_AT
617	16039_S_AT	669	16357_AT	719	16617_S_AT
618	16040_AT	670	16380_AT	720	16618_S_AT
619	16042_S_AT	671	16382_AT	721	16620_S_AT
620	16047_AT	672	16393_S_AT	722	16621_S_AT
621	16049_S_AT	673	16402_S_AT	723	16631_S_AT
622	16051_S_AT	674	16411_S_AT	724	16634_S_AT
623	16055_S_AT	675	16442_S_AT	725	16635_S_AT
624	16059_S_AT	676	16446_AT	726	16636_S_AT
625	16062_S_AT	677	16448_G_AT	727	16639_S_AT
626	16066_S_AT	678	16453_S_AT	728	16640_S_AT
627	16069_S_AT	679	16457_S_AT	729	16650_S_AT
628	16074_S_AT	680	16465_AT	730	16652_S_AT
629	16076_S_AT		16916_S_AT	731	16654_AT
630	16077_S_AT	681	16470_S_AT	732	16672_AT
	17579_S_AT		18735_S_AT	733	16673_AT
631	16079_S_AT	682	16481_S_AT	734	16687_S_AT
632	16084_S_AT	683	16486_AT	735	16747_AT
	17998_S_AT	684	16487_AT	736	16753_AT
633	16087_S_AT	685	16488_AT	737	16768_AT

TABLE 3 (cont)

738	16777_AT	790	17123_S_AT	843	17562_AT
739	16784_AT	791	17129_S_AT	844	17564_S_AT
740	16807_AT	792	17132_AT		19361_S_AT
741	16811_AT	793	17166_AT	845	17565_S_AT
742	16845_AT	794	17206_AT	846	17568_AT
743	16894_AT	795	17207_AT	847	17573_AT
744	16899_AT	796	17215_AT	848	17577_G_AT
745	16911_AT	797	17237_AT	849	17578_AT
746	16920_AT	798	17247_AT	850	17596_AT
747	16921_AT	799	17254_AT	851	17627_AT
748	16924_S_AT	800	17286_AT	852	17631_AT
749	16926_S_AT	801	17288_S_AT	853	17632_AT
750	16931_S_AT	802	17292_AT	854	17672_AT
751	16934_S_AT	803	17300_AT	855	17675_AT
752	16937_AT	804	17303_S_AT	856	17677_AT
753	16938_AT	805	17318_AT	857	17732_AT
754	16942_AT	806	17319_AT	858	17743_AT
755	16943_S_AT	807	17322_AT	859	17748_AT
	18231_AT	808	17323_AT	860	17782_AT
756	16949_S_AT	809	17332_S_AT	861	17823_S_AT
757	16952_S_AT	810	17374_AT	862	17841_AT
758	16956_AT	811	17381_AT	863	17849_S_AT
759	16962_S_AT	812	17388_AT	864	17852_G_AT
760	16965_S_AT	813	17392_S_AT	865	17857_AT
761	16970_S_AT	814	17405_AT	866	17865_AT
	18010_S_AT	815	17415_AT	867	17882_AT
762	16977_AT	816	17418_S_AT	868	17885_AT
763	16984_AT	817	17420_AT	869	17900_S_AT
764	16996_S_AT	818	17423_S_AT	870	17910_AT
765	16997_AT	819	17426_AT	871	17911_AT
766	17000_AT	820	17427_AT	872	17916_AT
767	17005_AT	821	17429_S_AT	873	17917_S_AT
768	17010_S_AT	822	17431_AT	874	17918_AT
769	17017_S_AT	823	17439_G_AT	875	17921_S_AT
770	17031_S_AT	824	17457_AT	876	17922_AT
771	17033_S_AT	825	17458_AT	877	17926_S_AT
772	17053_S_AT	826	17462_S_AT	878	17933_AT
773	17055_S_AT	827	17463_AT	879	17935_AT
774	17063_S_AT	828	17465_AT	880	17956_I_AT
775	17068_S_AT	829	17466_S_AT	881	17966_AT
776	17070_S_AT	830	17475_AT	882	17967_AT
777	17075_S_AT	831	17479_AT	883	17970_I_AT
778	17084_S_AT	832	17482_S_AT	884	17978_S_AT
779	17087_S_AT	833	17495_S_AT		20635_S_AT
780	17092_S_AT	834	17508_S_AT	885	17986_S_AT
781	17095_S_AT	835	17522_S_AT	886	17993_AT
782	17096_S_AT	836	17523_S_AT	887	18001_AT
783	17102_S_AT	837	17537_S_AT	888	18003_AT
784	17105_S_AT	838	17538_S_AT	889	18004_AT
785	17109_S_AT	839	17539_S_AT	890	18005_AT
786	17110_S_AT	840	17546_S_AT	891	18029_G_AT
787	17113_S_AT		18694_S_AT		18030_I_AT
788	17115_S_AT	841	17557_S_AT	892	18040_S_AT
789	17116_S_AT	842	17560_S_AT	893	18045_AT

TABLE 3 (cont)

894	18064_R_AT	947	18580_AT	1001	18889_AT
895	18065_R_AT	948	18581_AT	1002	18892_S_AT
896	18074_AT	949	18584_AT	1003	18901_AT
897	18076_S_AT	950	18587_S_AT	1004	18911_AT
898	18077_AT	951	18588_AT	1005	18917_I_AT
899	18081_AT	952	18591_AT	1006	18939_AT
900	18154_S_AT	953	18592_S_AT	1007	18947_I_AT
	18365_S_AT	954	18600_AT	1008	18950_AT
901	18165_AT	955	18601_S_AT	1009	18951_S_AT
902	18174_AT	956	18607_S_AT	1010	18954_AT
903	18176_AT	957	18611_AT	1011	18956_AT
904	18194_I_AT	958	18616_AT	1012	18959_AT
905	18197_AT	959	18622_G_AT	1013	18966_AT
906	18198_AT	960	18623_AT	1014	18974_AT
907	18213_AT	961	18628_AT	1015	18976_AT
908	18219_AT	962	18631_AT	1016	18980_AT
909	18221_AT	963	18635_AT	1017	18989_S_AT
910	18222_AT	964	18636_AT	1018	18994_AT
911	18226_S_AT	965	18638_AT	1019	19030_AT
912	18232_AT	966	18652_AT	1020	19039_AT
913	18237_AT	967	18657_AT	1021	19049_AT
914	18241_AT	968	18659_AT	1022	19083_AT
915	18257_AT	969	18660_S_AT	1023	19115_AT
916	18258_S_AT	970	18667_AT	1024	19117_S_AT
917	18269_S_AT	971	18675_AT	1025	19122_AT
918	18274_S_AT	972	18684_AT	1026	19125_S_AT
919	18275_AT	973	18686_S_AT	1027	19127_AT
920	18278_AT	974	18688_S_AT	1028	19130_AT
921	18282_AT	975	18693_S_AT	1029	19144_AT
922	18283_AT	976	18698_S_AT	1030	19157_S_AT
923	18290_AT	977	18705_AT	1031	19178_AT
924	18291_AT	978	18707_AT	1032	19190_G_AT
925	18306_AT	979	18708_AT	1033	19198_AT
926	18316_AT	980	18726_S_AT	1034	19202_AT
927	18317_AT	981	18727_AT	1035	19209_S_AT
928	18327_S_AT	982	18732_I_AT	1036	19211_AT
929	18337_S_AT	983	18736_AT	1037	19218_AT
930	18339_AT	984	18750_F_AT	1038	19222_AT
931	18347_S_AT	985	18754_AT	1039	19226_G_AT
932	18383_AT	986	18778_AT	1040	19229_AT
933	18390_AT	987	18806_S_AT	1041	19230_AT
934	18439_S_AT	988	18823_S_AT	1042	19232_S_AT
935	18465_S_AT	989	18829_AT	1043	19285_AT
936	18487_AT	990	18835_AT	1044	19326_AT
937	18508_S_AT	991	18844_AT	1045	19332_AT
938	18512_AT	992	18859_AT	1046	19346_AT
939	18543_AT	993	18864_AT	1047	19347_AT
940	18544_AT	994	18866_AT	1048	19362_AT
941	18552_AT	995	18880_AT	1049	19363_AT
942	18555_AT	996	18883_G_AT	1050	19364_AT
943	18556_AT	997	18885_AT	1051	19367_AT
944	18561_AT	998	18886_AT	1052	19373_AT
945	18567_AT	999	18887_AT	1053	19381_AT
946	18573_AT	1000	18888_AT	1054	19382_AT

TABLE 3 (cont)

1055	19384_AT	1109	19833_S_AT	1163	20093_I_AT
1056	19401_AT	1110	19834_AT	1164	20099_AT
1057	19406_AT	1111	19836_AT	1165	20100_AT
1058	19413_AT	1112	19841_AT	1166	20113_S_AT
1059	19416_AT	1113	19845_G_AT	1167	20117_AT
1060	19426_S_AT	1114	19854_AT	1168	20123_AT
1061	19439_AT	1115	19855_AT	1169	20127_S_AT
1062	19441_S_AT	1116	19866_AT	1170	20129_AT
1063	19442_AT	1117	19867_AT	1171	20150_AT
1064	19448_S_AT	1118	19870_S_AT	1172	20154_AT
1065	19454_AT	1119	19871_AT	1173	20156_AT
1066	19462_S_AT	1120	19872_AT	1174	20165_AT
1067	19464_AT	1121	19875_S_AT	1175	20173_AT
1068	19470_AT	1122	19876_AT	1176	20178_S_AT
1069	19483_AT	1123	19879_S_AT	1177	20183_AT
1070	19489_S_AT	1124	19881_AT	1178	20188_AT
1071	19513_AT	1125	19897_S_AT	1179	20189_AT
1072	19548_AT	1126	19903_AT	1180	20197_AT
1073	19562_AT	1127	19905_AT	1181	20210_G_AT
1074	19563_S_AT	1128	19906_AT	1182	20213_AT
1075	19567_AT	1129	19907_AT	1183	20229_AT
1076	19581_AT	1130	19910_AT	1184	20232_S_AT
1077	19589_S_AT	1131	19913_AT	1185	20255_AT
1078	19595_S_AT	1132	19920_S_AT	1186	20257_AT
1079	19606_AT	1133	19932_AT	1187	20262_AT
1080	19623_AT	1134	19939_AT	1188	20275_AT
1081	19624_AT	1135	19945_AT	1189	20278_S_AT
1082	19627_S_AT	1136	19947_AT	1190	20282_S_AT
1083	19636_AT	1137	19951_AT	1191	20284_AT
1084	19652_AT	1138	19956_AT	1192	20293_AT
1085	19655_AT	1139	19962_AT	1193	20294_AT
1086	19657_S_AT	1140	19963_AT	1194	20312_S_AT
1087	19658_AT	1141	19969_AT	1195	20315_I_AT
1088	19660_AT	1142	19970_S_AT	1196	20330_S_AT
1089	19665_S_AT	1143	19971_AT	1197	20331_AT
1090	19667_AT	1144	19972_AT	1198	20350_S_AT
1091	19671_AT	1145	19981_AT	1199	20354_S_AT
1092	19677_AT	1146	19990_AT	1200	20355_AT
1093	19686_AT	1147	19996_AT	1201	20360_AT
1094	19689_AT	1148	20003_S_AT	1202	20363_AT
1095	19690_S_AT	1149	20009_S_AT	1203	20369_S_AT
1096	19695_AT	1150	20013_AT	1204	20378_G_AT
1097	19698_AT	1151	20018_AT	1205	20383_AT
1098	19700_S_AT	1152	20024_S_AT	1206	20384_AT
1099	19708_AT	1153	20027_AT	1207	20387_AT
1100	19717_AT	1154	20045_AT	1208	20393_AT
1101	19726_S_AT	1155	20047_AT	1209	20396_AT
1102	19744_AT	1156	20048_AT	1210	20399_AT
1103	19752_S_AT	1157	20050_AT	1211	20409_G_AT
1104	19759_AT	1158	20051_AT	1212	20412_S_AT
1105	19782_AT	1159	20058_AT	1213	20413_AT
1106	19803_S_AT	1160	20067_AT	1214	20439_AT
1107	19828_AT	1161	20068_AT	1215	20440_AT
1108	19831_I_AT	1162	20069_AT	1216	20444_AT

TABLE 3 (cont)

1217	20445_AT
1218	20449_AT
1219	20456_AT
1220	20462_AT
1221	20471_AT
1222	20474_AT
1223	20495_S_AT
1224	20499_AT
1225	20501_AT
1226	20511_AT
1227	20515_S_AT
1228	20516_AT
1229	20517_AT
1230	20518_AT
1231	20520_S_AT
1232	20536_S_AT
1233	20538_S_AT
1234	20539_S_AT
1235	20558_AT
1236	20561_AT
1237	20567_AT
1238	20571_AT
1239	20582_S_AT
1240	20586_I_AT
1241	20590_AT
1242	20592_AT
1243	20594_AT
1244	20608_S_AT
1245	20612_S_AT
1246	20616_AT
1247	20620_G_AT
1248	20637_AT
1249	20643_AT
1250	20649_AT
1251	20651_AT
1252	20654_S_AT
1253	20670_AT
1254	20684_AT
1255	20685_AT
1256	20693_AT
1257	20701_S_AT
1258	20704_AT
1259	20705_AT
1260	20715_AT
1261	20719_AT

TABLE 4: 2X UP IN COLD, ONLY

11997_at	12688_at	13274_s_at	14145_at	15083_at	15639_s_at
11998_at	12701_i_at	13278_f_at	14170_at	15084_at	15641_s_at
12018_at	12702_at	13279_s_at	14186_at	15096_at	15660_s_at
12031_at	12719_f_at	13285_s_at	14196_at	15101_s_at	15665_s_at
12047_at	12726_f_at	13288_s_at	14227_at	15105_s_at	15687_f_at
12051_at	12736_f_at	13292_s_at	14234_at	15112_s_at	15694_s_at
12053_at	12754_g_at	13297_s_at	14250_r_at	15115_f_at	15712_s_at
12060_at	12762_r_at	13299_s_at	14270_at	15116_f_at	15783_s_at
12072_at	12766_at	13332_at	14298_g_at	15122_s_at	15808_at
12074_at	12767_at	13351_at	14303_s_at	15126_s_at	15837_at
12102_at	12768_at	13352_at	14312_at	15131_s_at	15850_at
12112_at	12773_at	13422_at	14339_at	15132_s_at	15862_at
12117_at	12788_at	13435_at	14388_at	15137_s_at	15868_at
12130_at	12802_at	13461_s_at	14393_at	15144_s_at	15878_at
12145_s_at	12860_s_at	13467_at	14511_at	15148_s_at	15901_at
12151_at	12861_s_at	13488_at	14525_s_at	15153_s_at	15912_at
12163_at	12879_s_at	13495_s_at	14527_at	15159_s_at	15920_i_at
12175_at	12891_at	13539_i_at	14534_s_at	15160_s_at	15941_at
12187_at	12914_s_at	13542_at	14554_at	15166_s_at	15945_at
12195_at	12927_s_at	13575_at	14566_at	15174_f_at	15960_at
12219_at	12947_at	13577_s_at	14579_at	15197_s_at	15990_at
12256_at	12956_i_at	13617_at	14591_at	15270_at	16001_at
12269_s_at	12966_s_at	13634_s_at	14595_at	15319_at	16009_s_at
12307_at	12974_at	13656_at	14600_at	15325_at	16010_s_at
12315_at	12987_s_at	13671_s_at	14631_s_at	15337_at	16034_at
12336_at	12994_s_at	13691_s_at	14635_s_at	15341_at	16036_i_at
12349_s_at	12998_at	13700_at	14679_s_at	15343_at	16039_s_at
12353_at	13002_at	13704_s_at	14691_at	15355_s_at	16040_at
12359_s_at	13018_at	13709_s_at	14697_g_at	15367_at	16042_s_at
12390_at	13023_at	13715_at	14709_at	15379_at	16047_at
12395_s_at	13046_g_at	13785_at	14711_s_at	15381_at	16049_s_at
12431_at	13054_at	13803_at	14728_s_at	15410_at	16051_s_at
12436_at	13086_r_at	13812_s_at	14731_s_at	15417_s_at	16062_s_at
12443_s_at	13087_at	13825_s_at	14797_s_at	15422_at	16079_s_at
12447_at	13100_at	13850_i_at	14809_at	15433_at	16087_s_at
12452_at	13109_at	13904_s_at	14843_at	15451_at	16090_s_at
12477_at	13119_at	13908_s_at	14847_at	15452_at	16117_s_at
12503_at	13120_at	13927_at	14872_at	15453_s_at	16118_s_at
12516_s_at	13128_at	13971_s_at	14886_at	15472_at	16137_s_at
12532_at	13134_s_at	13985_s_at	14896_at	15489_at	16155_s_at
12544_at	13140_at	14013_at	14897_at	15490_at	16162_s_at
12561_at	13143_at	14019_at	14900_at	15503_at	16184_at
12602_at	13167_at	14021_r_at	14956_s_at	15510_r_at	16192_at
12610_at	13172_s_at	14028_at	14958_at	15517_s_at	16222_at
12631_at	13178_at	14048_at	14965_at	15518_at	16244_at
12647_s_at	13179_at	14058_at	14984_s_at	15544_at	16250_at
12650_at	13181_at	14059_at	15004_at	15588_s_at	16260_at
12656_at	13187_i_at	14064_at	15010_at	15600_s_at	16286_at
12674_at	13209_s_at	14073_at	15036_r_at	15605_s_at	16296_at
12675_s_at	13219_s_at	14105_at	15040_g_at	15613_s_at	16297_at
12676_s_at	13221_at	14106_at	15046_s_at	15614_s_at	16342_at
12681_s_at	13243_r_at	14126_s_at	15057_at	15616_s_at	16367_i_at
12686_s_at	13260_s_at	14140_at	15073_at	15633_s_at	16411_s_at



TABLE 4 (cont): 2X UP IN COLD, ONLY

16442_s_at	17077_s_at	17978_s_at	18885_at	19689_at	20412_s_at
16465_at	17102_s_at	17999_at	18887_at	19698_at	20413_at
16466_s_at	17109_s_at	18001_at	18888_at	19700_s_at	20432_at
16468_at	17113_s_at	18004_at	18889_at	19707_s_at	20433_at
16486_at	17123_s_at	18012_s_at	18901_at	19708_at	20456_at
16487_at	17128_s_at	18040_s_at	18907_s_at	19713_at	20462_at
16488_at	17129_s_at	18176_at	18917_i_at	19718_at	20471_at
16489_at	17132_at	18194_i_at	18939_at	19744_at	20511_at
16496_s_at	17166_at	18197_at	18947_i_at	19836_at	20515_s_at
16499_at	17206_at	18198_at	18949_at	19839_at	20517_at
16511_at	17237_at	18213_at	18954_at	19840_s_at	20518_at
16517_at	17300_at	18219_at	18959_at	19845_g_at	20529_at
16538_s_at	17319_at	18222_at	18974_at	19854_at	20536_s_at
16554_s_at	17322_at	18231_at	18976_at	19855_at	20538_s_at
16571_s_at	17332_s_at	18232_at	18980_at	19860_at	20539_s_at
16576_f_at	17381_at	18241_at	18989_s_at	19866_at	20576_at
16595_s_at	17388_at	18269_s_at	19019_i_at	19871_at	20582_s_at
16605_s_at	17392_s_at	18272_at	19049_at	19875_s_at	20586_i_at
16610_s_at	17408_at	18282_at	19083_at	19879_s_at	20608_s_at
16620_s_at	17424_at	18298_at	19130_at	19881_at	20649_at
16621_s_at	17429_s_at	18316_at	19156_s_at	19913_at	20651_at
16635_s_at	17457_at	18317_at	19178_at	19939_at	20684_at
16636_s_at	17458_at	18331_s_at	19190_g_at	19945_at	20685_at
16638_s_at	17466_s_at	18347_s_at	19199_at	19947_at	20699_at
16650_s_at	17477_s_at	18383_at	19202_at	19951_at	20705_at
16672_at	17482_s_at	18390_at	19209_s_at	19956_at	20715_at
16673_at	17538_s_at	18455_at	19211_at	19971_at	
16687_s_at	17546_s_at	18465_s_at	19218_at	19976_at	
16747_at	17562_at	18544_at	19229_at	19998_at	
16753_at	17581_g_at	18555_at	19322_at	20003_s_at	
16768_at	17627_at	18556_at	19326_at	20015_at	
16805_s_at	17631_at	18560_at	19359_s_at	20027_at	
16807_at	17632_at	18561_at	19367_at	20051_at	
16845_at	17645_s_at	18571_at	19384_at	20068_at	
16847_at	17672_at	18588_at	19389_at	20093_i_at	
16896_s_at	17675_at	18597_at	19397_at	20117_at	
16899_at	17677_at	18601_s_at	19406_at	20150_at	
16902_at	17693_at	18611_at	19426_s_at	20156_at	
16911_at	17732_at	18623_at	19441_s_at	20165_at	
16914_s_at	17743_at	18635_at	19442_at	20257_at	
16943_s_at	17748_at	18659_at	19470_at	20262_at	
16956_at	17775_at	18660_s_at	19489_s_at	20275_at	
16996_s_at	17782_at	18673_at	19562_at	20282_s_at	
17010_s_at	17841_at	18694_s_at	19577_at	20288_g_at	
17016_s_at	17852_g_at	18705_at	19589_s_at	20293_at	
17032_s_at	17900_s_at	18708_at	19597_s_at	20315_i_at	
17033_s_at	17901_at	18738_f_at	19611_s_at	20330_s_at	
17043_s_at	17911_at	18750_f_at	19624_at	20360_at	
17050_s_at	17921_s_at	18778_at	19657_s_at	20363_at	
17055_s_at	17922_at	18829_at	19667_at	20369_s_at	
17068_s_at	17933_at	18835_at	19671_at	20384_at	
17071_s_at	17967_at	18866_at	19677_at	20393_at	
17075_s_at	17970_i_at	18875_s_at	19686_at	20396_at	

TABLE 5: 2X UP COLD 3 HR, ONLY

12117_at	13671_s_at	15453_s_at	17237_at	19624_at
12145_s_at	13691_s_at	15489_at	17319_at	19657_s_at
12151_at	13785_at	15518_at	17392_s_at	19667_at
12163_at	13803_at	15588_s_at	17429_s_at	19845_g_at
12187_at	13825_s_at	15613_s_at	17477_s_at	19855_at
12256_at	13904_s_at	15614_s_at	17538_s_at	19866_at
12315_at	14013_at	15616_s_at	17581_g_at	19945_at
12349_s_at	14021_r_at	15639_s_at	17627_at	19951_at
12353_at	14028_at	15641_s_at	17672_at	19998_at
12359_s_at	14064_at	15660_s_at	17693_at	20003_s_at
12544_at	14126_s_at	15687_f_at	17782_at	20015_at
12602_at	14145_at	15694_s_at	17841_at	20051_at
12610_at	14170_at	15862_at	17900_s_at	20093_i_at
12676_s_at	14196_at	15868_at	17933_at	20117_at
12686_s_at	14250_r_at	15878_at	17978_s_at	20288_g_at
12701_i_at	14298_g_at	15901_at	18001_at	20360_at
12702_at	14303_s_at	16034_at	18012_s_at	20369_s_at
12719_f_at	14339_at	16039_s_at	18198_at	20384_at
12736_f_at	14527_at	16040_at	18219_at	20462_at
12754_g_at	14534_s_at	16042_s_at	18241_at	20471_at
12766_at	14554_at	16047_at	18269_s_at	20515_s_at
12767_at	14595_at	16062_s_at	18272_at	20538_s_at
12768_at	14635_s_at	16087_s_at	18282_at	20576_at
12773_at	14679_s_at	16117_s_at	18298_at	20608_s_at
12788_at	14691_at	16118_s_at	18383_at	20651_at
12879_s_at	14697_g_at	16162_s_at	18556_at	20685_at
12891_at	14709_at	16184_at	18588_at	20705_at
12947_at	14728_s_at	16222_at	18601_s_at	
12966_s_at	14809_at	16250_at	18611_at	
12974_at	14896_at	16411_s_at	18694_s_at	
12994_s_at	14965_at	16442_s_at	18708_at	
13002_at	14984_s_at	16465_at	18738_f_at	
13100_at	15046_s_at	16486_at	18778_at	
13140_at	15083_at	16488_at	18829_at	
13167_at	15096_at	16489_at	18835_at	
13172_s_at	15105_s_at	16517_at	18866_at	
13179_at	15115_f_at	16571_s_at	18875_s_at	
13187_i_at	15116_f_at	16605_s_at	18888_at	
13219_s_at	15122_s_at	16610_s_at	18907_s_at	
13260_s_at	15126_s_at	16620_s_at	18917_i_at	
13278_f_at	15131_s_at	16636_s_at	18939_at	
13279_s_at	15132_s_at	16650_s_at	18974_at	
13285_s_at	15137_s_at	16805_s_at	19190_g_at	
13288_s_at	15153_s_at	16845_at	19199_at	
13292_s_at	15159_s_at	16899_at	19202_at	
13297_s_at	15160_s_at	16914_s_at	19211_at	
13351_at	15197_s_at	16943_s_at	19384_at	
13352_at	15355_s_at	16996_s_at	19406_at	
13435_at	15379_at	17010_s_at	19426_s_at	
13467_at	15417_s_at	17043_s_at	19442_at	
13488_at	15422_at	17068_s_at	19470_at	
13495_s_at	15451_at	17109_s_at	19577_at	
13656_at	15452_at	17128_s_at	19597_s_at	

TABLE 6: 2X DOWN COLD, ONLY

11991_g_at	12450_s_at	12881_s_at	13151_g_at	13621_g_at	14056_at
11992_at	12474_at	12889_s_at	13160_at	13623_r_at	14057_at
12001_at	12491_at	12901_s_at	13161_at	13629_s_at	14061_at
12006_s_at	12497_at	12902_at	13162_at	13631_at	14067_at
12007_at	12500_s_at	12904_s_at	13165_at	13635_at	14068_s_at
12009_at	12515_at	12905_s_at	13166_at	13646_at	14072_at
12022_at	12521_at	12908_s_at	13185_at	13650_at	14074_at
12023_s_at	12523_at	12910_s_at	13193_s_at	13652_at	14075_at
12026_at	12526_at	12916_s_at	13211_s_at	13653_at	14083_at
12037_at	12527_at	12923_s_at	13213_s_at	13655_at	14084_at
12052_at	12534_g_at	12926_s_at	13219_s_at	13657_at	14089_at
12125_at	12549_s_at	12931_s_at	13233_at	13666_s_at	14095_s_at
12143_at	12550_s_at	12937_r_at	13236_s_at	13667_s_at	14096_at
12149_at	12552_at	12941_g_at	13239_s_at	13669_s_at	14100_at
12156_at	12555_s_at	12942_at	13241_s_at	13670_s_at	14101_at
12166_i_at	12556_at	12949_at	13254_s_at	13672_s_at	14103_at
12167_at	12575_s_at	12953_at	13266_s_at	13678_s_at	14121_at
12169_i_at	12576_s_at	12958_at	13273_s_at	13679_s_at	14129_s_at
12176_at	12581_s_at	12959_at	13275_f_at	13688_s_at	14133_s_at
12179_at	12587_at	12966_s_at	13276_s_at	13690_s_at	14143_at
12196_at	12597_at	12975_at	13278_f_at	13691_s_at	14148_at
12198_at	12606_at	12983_at	13280_s_at	13692_s_at	14162_at
12200_at	12609_at	12984_at	13285_s_at	13714_at	14194_at
12202_at	12646_at	13002_at	13296_s_at	13724_at	14208_at
12212_at	12649_at	13009_i_at	13347_at	13748_at	14217_at
12214_g_at	12653_at	13011_at	13355_at	13751_at	14223_at
12224_at	12661_at	13014_at	13361_at	13759_at	14235_at
12226_at	12666_at	13024_at	13404_at	13767_at	14236_at
12233_at	12678_i_at	13034_s_at	13406_at	13789_at	14251_f_at
12240_at	12705_f_at	13041_s_at	13459_at	13876_at	14252_f_at
12253_g_at	12736_f_at	13048_s_at	13460_at	13880_s_at	14285_at
12270_at	12737_f_at	13067_s_at	13464_at	13883_at	14301_s_at
12278_at	12758_at	13068_at	13523_s_at	13887_s_at	14316_at
12284_at	12760_g_at	13073_s_at	13529_at	13895_at	14366_at
12287_s_at	12764_f_at	13078_s_at	13541_at	13906_s_at	14369_at
12293_at	12765_at	13079_at	13545_s_at	13919_at	14392_g_at
12294_s_at	12772_at	13081_s_at	13550_at	13923_at	14421_at
12300_at	12776_at	13083_at	13552_at	13932_at	14431_at
12312_at	12784_at	13090_at	13556_i_at	13935_at	14436_at
12315_at	12793_at	13092_s_at	13561_at	13940_at	14448_at
12324_i_at	12794_at	13098_at	13563_s_at	13949_s_at	14450_at
12331_s_at	12795_at	13103_at	13567_at	13954_g_at	14454_at
12344_at	12809_g_at	13105_at	13568_at	13973_at	14459_at
12348_at	12812_at	13107_s_at	13571_at	13983_at	14478_at
12353_at	12815_at	13108_at	13576_at	13989_at	14482_at
12372_at	12816_at	13114_at	13583_at	14010_at	14485_at
12374_i_at	12818_at	13118_f_at	13598_at	14014_at	14492_s_at
12405_at	12824_s_at	13123_at	13601_at	14015_s_at	14505_at
12408_at	12828_s_at	13124_at	13604_at	14016_s_at	14510_at
12410_g_at	12842_s_at	13133_s_at	13613_at	14025_s_at	14517_at
12419_at	12846_s_at	13135_s_at	13616_s_at	14027_at	14519_at
12427_at	12858_at	13139_at	13618_s_at	14030_at	14534_s_at
12438_at	12869_s_at	13146_s_at	13619_at	14044_at	14538_r_at

TABLE 6 (cont): 2X DOWN COLD, ONLY

14558_at	15047_at	15512_at	15940_at	16357_at	16894_at
14559_s_at	15054_at	15514_at	15948_s_at	16380_at	16899_at
14572_at	15056_at	15515_r_at	15956_at	16382_at	16920_at
14584_at	15058_s_at	15529_at	15976_at	16385_s_at	16921_at
14587_at	15063_at	15534_f_at	15978_at	16393_s_at	16924_s_at
14595_at	15066_at	15538_at	15986_s_at	16402_s_at	16926_s_at
14602_at	15081_at	15541_at	16004_s_at	16417_s_at	16931_s_at
14603_at	15091_at	15543_at	16015_at	16442_s_at	16934_s_at
14605_at	15097_s_at	15551_at	16017_at	16446_at	16937_at
14620_s_at	15102_s_at	15574_s_at	16019_at	16448_g_at	16938_at
14626_s_at	15107_s_at	15576_s_at	16024_at	16453_s_at	16942_at
14630_s_at	15118_s_at	15577_s_at	16031_at	16457_s_at	16949_s_at
14637_s_at	15127_s_at	15578_s_at	16055_s_at	16470_s_at	16950_s_at
14640_s_at	15130_s_at	15581_s_at	16059_s_at	16481_s_at	16952_s_at
14642_f_at	15132_s_at	15583_s_at	16065_s_at	16510_at	16962_s_at
14650_s_at	15133_s_at	15591_s_at	16066_s_at	16512_s_at	16965_s_at
14654_s_at	15139_s_at	15595_s_at	16069_s_at	16514_at	16970_s_at
14667_s_at	15143_s_at	15602_f_at	16074_s_at	16516_at	16977_at
14668_s_at	15146_s_at	15606_s_at	16076_s_at	16523_s_at	16984_at
14669_s_at	15150_s_at	15608_s_at	16077_s_at	16526_at	16989_at
14672_s_at	15161_s_at	15616_s_at	16084_s_at	16528_at	16993_at
14673_s_at	15162_s_at	15618_s_at	16089_s_at	16531_s_at	16997_at
14675_s_at	15167_s_at	15620_s_at	16102_s_at	16535_s_at	17000_at
14679_s_at	15170_s_at	15627_s_at	16103_s_at	16537_s_at	17005_at
14681_g_at	15171_s_at	15634_s_at	16105_s_at	16543_s_at	17010_s_at
14682_i_at	15178_s_at	15637_s_at	16108_s_at	16544_s_at	17017_s_at
14689_at	15182_s_at	15642_s_at	16112_s_at	16550_s_at	17031_s_at
14701_s_at	15185_s_at	15643_s_at	16117_s_at	16559_s_at	17040_s_at
14703_at	15188_s_at	15646_s_at	16118_s_at	16567_s_at	17053_s_at
14712_s_at	15193_s_at	15651_f_at	16125_s_at	16577_s_at	17056_s_at
14713_s_at	15196_s_at	15652_s_at	16127_s_at	16579_s_at	17063_s_at
14715_s_at	15201_f_at	15667_s_at	16134_s_at	16580_s_at	17070_s_at
14734_s_at	15206_s_at	15668_s_at	16136_s_at	16583_s_at	17074_s_at
14781_at	15207_s_at	15670_s_at	16138_s_at	16584_s_at	17084_s_at
14800_at	15213_s_at	15671_s_at	16140_s_at	16593_s_at	17085_s_at
14856_s_at	15243_at	15675_s_at	16143_s_at	16598_s_at	17087_s_at
14882_at	15256_at	15679_s_at	16144_s_at	16603_s_at	17092_s_at
14908_at	15348_at	15685_s_at	16145_s_at	16604_s_at	17095_s_at
14912_at	15350_at	15688_s_at	16148_s_at	16611_s_at	17096_s_at
14914_at	15372_at	15689_s_at	16151_s_at	16614_s_at	17097_s_at
14924_at	15383_at	15692_s_at	16158_f_at	16617_s_at	17103_s_at
14942_at	15384_at	15775_at	16160_f_at	16618_s_at	17105_s_at
14945_at	15385_at	15776_at	16168_s_at	16620_s_at	17110_s_at
14955_at	15387_at	15845_at	16169_s_at	16631_s_at	17115_s_at
14957_s_at	15406_at	15848_at	16171_s_at	16634_s_at	17116_s_at
14974_at	15423_at	15858_at	16172_s_at	16639_s_at	17119_s_at
14980_at	15431_at	15866_s_at	16222_at	16640_s_at	17122_s_at
14981_at	15464_at	15894_at	16232_s_at	16652_s_at	17207_at
14995_at	15468_at	15900_at	16242_at	16654_at	17215_at
15009_at	15471_at	15901_at	16288_at	16777_at	17247_at
15018_at	15475_s_at	15902_at	16294_s_at	16784_at	17254_at
15024_at	15485_at	15913_at	16325_at	16811_at	17286_at
15026_at	15505_at	15928_at	16346_s_at	16893_at	17288_s_at

TABLE 6 (cont): 2X DOWN COLD, ONLY

17292_at	17910_at	18337_s_at	18823_s_at	19382_at	19897_s_at
17303_s_at	17916_at	18339_at	18844_at	19401_at	19903_at
17305_at	17917_s_at	18365_s_at	18859_at	19402_at	19905_at
17318_at	17918_at	18402_at	18864_at	19406_at	19906_at
17323_at	17926_s_at	18439_s_at	18880_at	19413_at	19907_at
17374_at	17935_at	18487_at	18883_g_at	19416_at	19910_at
17405_at	17956_i_at	18508_s_at	18886_at	19429_at	19920_s_at
17415_at	17961_at	18512_at	18892_s_at	19432_s_at	19932_at
17418_s_at	17966_at	18543_at	18909_s_at	19439_at	19951_at
17420_at	17978_s_at	18552_at	18911_at	19448_s_at	19962_at
17423_s_at	17986_s_at	18567_at	18913_s_at	19454_at	19963_at
17426_at	17993_at	18573_at	18916_s_at	19462_s_at	19969_at
17427_at	17998_s_at	18580_at	18921_g_at	19464_at	19970_s_at
17430_s_at	18003_at	18581_at	18950_at	19469_at	19972_at
17431_at	18005_at	18584_at	18951_s_at	19483_at	19981_at
17439_g_at	18010_s_at	18587_s_at	18956_at	19484_s_at	19990_at
17442_i_at	18013_r_at	18590_at	18966_at	19513_at	19996_at
17449_s_at	18023_s_at	18591_at	18972_at	19548_at	19999_s_at
17462_s_at	18029_g_at	18592_s_at	18994_at	19563_s_at	20009_s_at
17463_at	18030_i_at	18600_at	19030_at	19567_at	20013_at
17465_at	18045_at	18601_s_at	19039_at	19581_at	20017_at
17475_at	18046_s_at	18607_s_at	19068_i_at	19595_s_at	20018_at
17479_at	18059_i_at	18610_s_at	19108_at	19606_at	20024_s_at
17495_s_at	18064_r_at	18611_at	19115_at	19623_at	20045_at
17508_s_at	18065_r_at	18616_at	19117_s_at	19627_s_at	20047_at
17522_s_at	18074_at	18622_g_at	19122_at	19636_at	20048_at
17523_s_at	18076_s_at	18628_at	19125_s_at	19641_at	20050_at
17529_s_at	18077_at	18631_at	19127_at	19652_at	20051_at
17537_s_at	18078_at	18636_at	19135_at	19655_at	20058_at
17539_s_at	18081_at	18638_at	19144_at	19658_at	20067_at
17543_s_at	18083_r_at	18652_at	19157_s_at	19660_at	20069_at
17555_s_at	18085_r_at	18657_at	19158_at	19665_s_at	20099_at
17557_s_at	18091_at	18667_at	19177_at	19667_at	20100_at
17560_s_at	18154_s_at	18675_at	19192_at	19690_s_at	20113_s_at
17564_s_at	18165_at	18684_at	19198_at	19695_at	20123_at
17565_s_at	18174_at	18686_s_at	19222_at	19717_at	20127_s_at
17568_at	18221_at	18688_s_at	19226_g_at	19726_s_at	20129_at
17570_g_at	18226_s_at	18693_s_at	19227_at	19752_s_at	20133_i_at
17573_at	18230_at	18698_s_at	19230_at	19759_at	20152_at
17577_g_at	18237_at	18706_s_at	19232_s_at	19782_at	20154_at
17578_at	18255_at	18707_at	19263_at	19789_s_at	20173_at
17579_s_at	18257_at	18726_s_at	19285_at	19803_s_at	20178_s_at
17585_s_at	18258_s_at	18727_at	19332_at	19828_at	20183_at
17596_at	18274_s_at	18732_i_at	19346_at	19831_i_at	20188_at
17600_s_at	18275_at	18735_s_at	19347_at	19833_s_at	20189_at
17823_s_at	18278_at	18736_at	19361_s_at	19834_at	20197_at
17840_s_at	18283_at	18738_f_at	19362_at	19835_at	20200_at
17849_s_at	18290_at	18747_f_at	19363_at	19841_at	20210_g_at
17857_at	18291_at	18754_at	19364_at	19867_at	20213_at
17865_at	18299_s_at	18782_at	19365_s_at	19870_s_at	20229_at
17882_at	18300_at	18789_at	19373_at	19871_at	20232_s_at
17885_at	18306_at	18806_s_at	19379_at	19872_at	20255_at
17902_s_at	18327_s_at	18814_at	19381_at	19876_at	20278_s_at

TABLE 6 (cont): 2X DOWN COLD, ONLY

20284_at	20693_at
20288_g_at	20701_s_at
20294_at	20704_at
20312_s_at	20707_s_at
20331_at	20719_at
20335_s_at	
20350_s_at	
20354_s_at	
20355_at	
20369_s_at	
20378_g_at	
20383_at	
20385_s_at	
20387_at	
20399_at	
20409_g_at	
20420_at	
20429_s_at	
20439_at	
20440_at	
20444_at	
20445_at	
20449_at	
20474_at	
20480_s_at	
20495_s_at	
20499_at	
20501_at	
20516_at	
20520_s_at	
20530_s_at	
20538_s_at	
20547_at	
20558_at	
20561_at	
20567_at	
20571_at	
20590_at	
20592_at	
20594_at	
20608_s_at	
20612_s_at	
20616_at	
20620_g_at	
20635_s_at	
20637_at	
20643_at	
20654_s_at	
20670_at	
20674_s_at	
20684_at	
20685_at	
20689_s_at	

TABLE 7

## SALINE STRESS RESPONSIVE SEQUENCES

SEQ AFFYMETRIX ID NO:	ID NO:	SEQ AFFYMETRIX ID NO:	ID NO:	SEQ AFFYMETRIX ID NO:	ID NO:
2227	12011_S_AT	2275	13993_S_AT	2324	15965_AT
2228	12153_AT	2276	14000_AT	2325	15969_S_AT
2229	12180_AT	2277	14003_AT	2326	15975_S_AT
2230	12186_AT	2278	14032_AT	2327	15995_S_AT
2231	12216_AT	2279	14043_AT	2328	15998_S_AT
2232	12265_AT	2280	14070_AT		18090_S_AT
2233	12335_AT	2281	14267_AT	2329	16028_AT
2234	12449_S_AT	2282	14269_AT	2330	16050_AT
2235	12470_AT	2283	14418_AT	2331	16060_S_AT
2236	12479_AT	2284	14427_AT	2332	16067_S_AT
2237	12487_AT	2285	14501_AT	2333	16072_S_AT
2238	12493_G_AT	2286	14544_AT	2334	16088_F_AT
2239	12562_AT	2287	14546_S_AT	2335	16273_AT
2240	12685_AT	2288	14570_AT	2336	16314_AT
2241	12704_F_AT	2289	14596_AT	2337	16413_S_AT
2242	12709_F_AT	2290	14729_S_AT	2338	16414_AT
2243	12734_F_AT	2291	14874_AT	2339	16426_AT
2244	12739_S_AT	2292	14888_AT	2340	16436_AT
2245	12750_S_AT	2293	14951_AT	2341	16455_AT
2246	12761_S_AT	2294	14952_AT	2342	16502_AT
2247	12813_AT	2295	14959_AT	2343	16548_S_AT
2248	12845_S_AT	2296	14979_AT	2344	16568_S_AT
2249	12946_AT	2297	15006_AT	2345	16582_S_AT
2250	13003_S_AT	2298	15042_AT	2346	16589_S_AT
2251	13052_S_AT	2299	15049_AT	2347	16594_S_AT
2252	13094_AT	2300	15062_AT	2348	16613_S_AT
2253	13142_AT	2301	15108_S_AT	2349	16651_S_AT
2254	13172_S_AT	2302	15147_S_AT	2350	16668_AT
	17880_S_AT	2303	15175_S_AT	2351	16820_AT
2255	13198_I_AT	2304	15176_S_AT	2352	16987_S_AT
2256	13209_S_AT	2305	15186_S_AT	2353	16995_AT
	16165_S_AT		18696_S_AT	2354	17039_S_AT
2257	13229_S_AT	2306	15192_S_AT	2355	17273_AT
2258	13253_F_AT	2307	15208_S_AT	2356	17278_AT
2259	13344_S_AT	2308	15324_AT	2357	17433_AT
2260	13370_AT	2309	15371_AT	2358	17467_AT
2261	13387_AT	2310	15424_AT	2359	17566_AT
2262	13408_S_AT	2311	15463_AT	2360	17595_S_AT
2263	13429_AT	2312	15465_AT	2361	17744_S_AT
2264	13472_AT	2313	15497_S_AT	2362	17758_AT
2265	13526_AT	2314	15589_S_AT	2363	17864_AT
2266	13569_AT	2315	15636_S_AT	2364	17868_AT
2267	13614_AT	2316	15663_S_AT	2365	17876_AT
2268	13686_S_AT	2317	15770_AT	2366	17894_AT
2269	13718_AT	2318	15792_AT	2367	17942_S_AT
2270	13719_AT	2319	15855_AT	2368	18008_R_AT
2271	13902_AT	2320	15860_AT	2369	18027_AT
2272	13918_AT	2321	15891_AT	2370	18053_S_AT
2273	13944_AT	2322	15898_AT	2371	18062_AT
2274	13964_AT	2323	15909_AT	2372	18082_AT

TABLE 7 (cont)

2373	18121_S_AT	2426	20648_S_AT
2374	18240_S_AT	2427	20668_AT
2375	18248_S_AT		
2376	18264_AT		
2377	18276_AT		
2378	18287_AT		
2379	18310_AT		
2380	18367_S_AT		
2381	18506_AT		
2382	18605_S_AT		
2383	18618_S_AT		
2384	18626_AT		
2385	18666_S_AT		
2386	18834_AT		
2387	18847_AT		
2388	18896_AT		
2389	18899_S_AT		
2390	18973_AT		
2391	18983_S_AT		
2392	18988_AT		
2393	18998_S_AT		
2394	19065_AT		
2395	19119_I_AT		
	19121_AT		
2396	19207_AT		
2397	19220_AT		
2398	19284_AT		
2399	19315_AT		
2400	19348_AT		
2401	19403_S_AT		
2402	19437_S_AT		
2403	19502_AT		
2404	19609_AT		
2405	19645_AT		
2406	19742_AT		
2407	19863_AT		
2408	19873_AT		
2409	19891_AT		
2410	20004_S_AT		
2411	20053_AT		
2412	20138_AT		
2413	20193_AT		
2414	20199_AT		
2415	20220_AT		
2416	20239_G_AT		
2417	20297_AT		
2418	20324_S_AT		
2419	20353_AT		
2420	20362_AT		
2421	20389_AT		
2422	20546_AT		
2423	20600_AT		
2424	20623_AT		
2425	20629_AT		



TABLE 8: 2X UP IN SALT, ONLY

12037_at	14570_at	16190_at	18506_at	20648_s_at
12137_at	14578_s_at	16196_at	18605_s_at	20678_at
12153_at	14596_at	16273_at	18626_at	20686_at
12186_at	14646_s_at	16314_at	18666_s_at	20707_s_at
12216_at	14662_f_at	16413_s_at	18747_f_at	
12268_at	14668_s_at	16414_at	18782_at	
12449_s_at	14729_s_at	16417_s_at	18834_at	
12470_at	14874_at	16455_at	18847_at	
12476_at	14888_at	16548_s_at	18913_s_at	
12487_at	14918_at	16582_s_at	18973_at	
12493_g_at	14952_at	16589_s_at	18988_at	
12609_at	14959_at	16594_s_at	18998_s_at	
12685_at	14986_at	16613_s_at	19065_at	
12704_f_at	15006_at	16651_s_at	19068_i_at	
12709_f_at	15042_at	16668_at	19123_at	
12734_f_at	15047_at	16690_g_at	19177_at	
12739_s_at	15062_at	16762_at	19220_at	
12750_s_at	15063_at	16820_at	19284_at	
12761_s_at	15108_s_at	16873_i_at	19288_at	
12819_at	15133_s_at	16987_s_at	19315_at	
12845_s_at	15147_s_at	16989_at	19437_s_at	
12946_at	15170_s_at	16995_at	19484_s_at	
13142_at	15175_s_at	17039_s_at	19502_at	
13198_i_at	15182_s_at	17040_s_at	19503_at	
13229_s_at	15190_s_at	17400_s_at	19592_at	
13275_f_at	15192_s_at	17425_s_at	19645_at	
13344_s_at	15324_at	17433_at	19742_at	
13370_at	15392_at	17467_at	19835_at	
13408_s_at	15424_at	17490_s_at	19873_at	
13464_at	15467_at	17529_s_at	19891_at	
13472_at	15497_s_at	17543_s_at	19992_at	
13526_at	15581_s_at	17566_at	20004_s_at	
13614_at	15623_f_at	17595_s_at	20053_at	
13652_at	15636_s_at	17744_s_at	20133_i_at	
13679_s_at	15646_s_at	17758_at	20138_at	
13751_at	15670_s_at	17855_at	20190_at	
13918_at	15770_at	17864_at	20199_at	
13919_at	15775_at	17876_at	20200_at	
13944_at	15778_at	18008_r_at	20297_at	
13964_at	15792_at	18013_r_at	20324_s_at	
13987_s_at	15855_at	18024_s_at	20335_s_at	
13993_s_at	15891_at	18027_at	20353_at	
14000_at	15909_at	18053_s_at	20362_at	
14032_at	15923_at	18078_at	20385_s_at	
14043_at	15969_s_at	18082_at	20389_at	
14052_at	15975_s_at	18090_s_at	20402_s_at	
14067_at	15995_s_at	18091_at	20450_at	
14070_at	15998_s_at	18121_s_at	20468_at	
14269_at	16017_at	18264_at	20489_at	
14285_at	16050_at	18276_at	20546_at	
14427_at	16067_s_at	18300_at	20569_s_at	
14501_at	16072_s_at	18367_s_at	20600_at	
14540_at	16165_s_at	18471_at	20623_at	

TABLE 9: 2X UP SALT, 3 HR ONLY

12037_at	15042_at	16987_s_at	20004_s_at
12137_at	15047_at	16989_at	20053_at
12153_at	15062_at	17039_s_at	20133_i_at
12186_at	15063_at	17040_s_at	20138_at
12216_at	15108_s_at	17425_s_at	20190_at
12268_at	15133_s_at	17433_at	20199_at
12470_at	15147_s_at	17490_s_at	20200_at
12476_at	15170_s_at	17543_s_at	20220_at
12487_at	15175_s_at	17744_s_at	20362_at
12493_g_at	15182_s_at	17864_at	20385_s_at
12609_at	15190_s_at	17876_at	20389_at
12685_at	15192_s_at	18008_r_at	20489_at
12704_f_at	15324_at	18013_r_at	20546_at
12709_f_at	15424_at	18024_s_at	20623_at
12734_f_at	15467_at	18027_at	20648_s_at
12739_s_at	15497_s_at	18053_s_at	20678_at
12750_s_at	15623_f_at	18078_at	20707_s_at
12819_at	15636_s_at	18082_at	
12946_at	15646_s_at	18090_s_at	
13142_at	15670_s_at	18091_at	
13229_s_at	15770_at	18121_s_at	
13275_f_at	15775_at	18264_at	
13370_at	15778_at	18276_at	
13408_s_at	15792_at	18367_s_at	
13464_at	15855_at	18471_at	
13472_at	15891_at	18506_at	
13614_at	15909_at	18605_s_at	
13652_at	15923_at	18626_at	
13679_s_at	15969_s_at	18666_s_at	
13918_at	15975_s_at	18747_f_at	
13919_at	15995_s_at	18782_at	
13944_at	15998_s_at	18834_at	
13987_s_at	16017_at	18847_at	
13993_s_at	16050_at	18913_s_at	
14000_at	16067_s_at	18973_at	
14032_at	16072_s_at	18988_at	
14043_at	16165_s_at	19065_at	
14052_at	16196_at	19068_i_at	
14067_at	16273_at	19123_at	
14269_at	16314_at	19177_at	
14285_at	16414_at	19220_at	
1450i_at	16417_s_at	19288_at	
14540_at	16455_at	19315_at	
14570_at	16548_s_at	19437_s_at	
14596_at	16582_s_at	19484_s_at	
14668_s_at	16589_s_at	19502_at	
14729_s_at	16594_s_at	19503_at	
14888_at	16613_s_at	19592_at	
14918_at	16651_s_at	19645_at	
14952_at	16668_at	19742_at	
14959_at	16762_at	19835_at	
14986_at	16820_at	19873_at	
15006_at	16873_i_at	19891_at	

TABLE 10: 2X DOWN SALT, ONLY

12011_s_at	16046_s_at	20239_g_at
12180_at	16060_s_at	20433_at
12265_at	16088_f_at	20629_at
12335_at	16150_s_at	20668_at
12479_at	16166_s_at	
12562_at	16316_at	
12656_at	16340_at	
12813_at	16367_i_at	
13003_s_at	16426_at	
13052_s_at	16427_at	
13094_at	16436_at	
13178_at	16489_at	
13253_f_at	16502_at	
13387_at	16568_s_at	
13429_at	16638_s_at	
13472_at	16646_s_at	
13569_at	17273_at	
13686_s_at	17278_at	
13718_at	17567_at	
13719_at	17868_at	
13902_at	17880_s_at	
14003_at	17894_at	
14144_at	17901_at	
14267_at	17942_s_at	
14418_at	17960_at	
14544_at	17999_at	
14546_s_at	18062_at	
14636_s_at	18240_s_at	
14951_at	18248_s_at	
14956_s_at	18267_at	
14979_at	18279_s_at	
14990_at	18287_at	
15040_g_at	18310_at	
15049_at	18351_s_at	
15115_f_at	18455_at	
15137_s_at	18560_at	
15148_s_at	18571_at	
15176_s_at	18618_s_at	
15208_s_at	18896_at	
15371_at	18899_s_at	
15453_s_at	18967_s_at	
15463_at	18983_s_at	
15465_at	19119_i_at	
15589_s_at	19121_at	
15663_s_at	19207_at	
15860_at	19348_at	
15898_at	19403_s_at	
15931_at	19609_at	
15965_at	19742_at	
15970_s_at	19826_at	
15972_s_at	19863_at	
16005_s_at	19883_at	
16028_at	20193_at	

TABLE 11

## OSMOTIC STRESS RESPONSIVE SEQUENCES

SEQ AFFYMETRIX ID NO:	ID NO:	SEQ AFFYMETRIX ID NO:	ID NO:	SEQ AFFYMETRIX ID NO:	ID NO:
2428	11994_AT	2475	13995_AT	2523	17037_S_AT
2429	12028_AT	2476	14062_AT	2524	17054_S_AT
2430	12033_AT	2477	14118_I_AT	2525	17257_S_AT
2431	12039_AT	2478	14141_AT		18725_S_AT
2432	12068_AT	2479	14310_AT	2526	17270_AT
2433	12096_AT	2480	14354_AT	2527	17275_I_AT
2434	12110_AT	2481	14476_AT	2528	17376_AT
2435	12114_AT	2482	14513_S_AT	2529	17378_AT
2436	12135_AT	2483	14568_S_AT	2530	17468_AT
2437	12139_AT	2484	14604_AT	2531	17481_AT
2438	12189_AT	2485	14634_S_AT	2532	17511_S_AT
2439	12191_AT	2486	14660_S_AT	2533	17519_S_AT
2440	12211_AT	2487	14666_S_AT	2534	17815_S_AT
2441	12223_S_AT	2488	14686_S_AT	2535	17897_AT
2442	12366_S_AT		17464_AT	2536	17923_S_AT
	12869_S_AT	2489	14726_S_AT	2537	17934_AT
2443	12381_AT	2490	14848_S_AT	2538	17937_S_AT
2444	12406_S_AT	2491	14873_AT	2539	17944_AT
2445	12412_AT	2492	14883_AT	2540	17958_AT
2446	12453_AT	2493	15082_AT	2541	18216_AT
2447	12571_S_AT	2494	15121_S_AT	2542	18227_AT
2448	12662_AT		16014_S_AT	2543	18284_AT
2449	12746_I_AT	2495	15168_S_AT	2544	18301_S_AT
2450	12774_AT	2496	15271_AT	2545	18312_S_AT
2451	12787_AT	2497	15338_AT	2546	18326_S_AT
2452	12847_AT	2498	15418_AT	2547	18369_AT
2453	12848_AT	2499	15429_AT	2548	18411_AT
2454	12895_AT	2500	15548_AT	2549	18533_AT
2455	12911_S_AT	2501	15666_S_AT	2550	18576_S_AT
2456	12920_AT	2502	15672_S_AT	2551	18599_AT
	12921_S_AT	2503	15680_S_AT	2552	18640_AT
2457	13027_AT	2504	15867_AT	2553	18672_S_AT
2458	13059_AT	2505	15918_AT	2554	18720_S_AT
2459	13075_I_AT	2506	15999_S_AT	2555	18768_AT
2460	13180_S_AT	2507	16303_AT	2556	18877_AT
2461	13255_I_AT	2508	16363_AT	2557	18942_AT
2462	13270_AT	2509	16440_S_AT	2558	18945_AT
	18167_S_AT	2510	16458_S_AT	2559	18960_AT
2463	13283_S_AT	2511	16475_AT	2560	18965_AT
2464	13382_AT	2512	16513_S_AT	2561	19060_AT
2465	13386_S_AT	2513	16529_AT	2562	19164_G_AT
2466	13433_AT	2514	16547_S_AT	2563	19266_AT
2467	13482_AT	2515	16553_F_AT	2564	19366_S_AT
2468	13732_AT	2516	16563_S_AT	2565	19369_AT
2469	13733_I_AT	2517	16629_S_AT	2566	19371_AT
2470	13842_AT	2518	16797_AT	2567	19386_AT
2471	13860_S_AT	2519	16814_AT	2568	19412_AT
2472	13868_AT	2520	16832_AT	2569	19427_S_AT
2473	13901_AT	2521	16976_S_AT	2570	19622_G_AT
2474	13933_AT	2522	17007_AT	2571	19681_AT

**TABLE 11 (cont)**

2572	19819_S_AT
2573	19961_S_AT
2574	20002_AT
2575	20034_I_AT
2576	20062_AT
2577	20136_AT
2578	20223_AT
2579	20235_I_AT
2580	20401_AT
2581	20407_AT
2582	20470_AT
2583	20626_AT
2584	20631_S_AT
2585	20647_AT

TABLE 12: 2X UP IN MANNITOL, ONLY

12039_at	16832_at
12068_at	16993_at
12139_at	17037_s_at
12212_at	17054_s_at
12278_at	17083_s_at
12366_s_at	17097_s_at
12453_at	17119_s_at
12556_at	17270_at
12575_s_at	17305_at
12746_i_at	17376_at
12848_at	17378_at
12869_s_at	17449_s_at
12920_at	17481_at
12921_s_at	17533_s_at
13041_s_at	17832_s_at
13059_at	17923_s_at
13241_s_at	17944_at
13255_i_at	18059_i_at
13270_at	18216_at
13382_at	18230_at
13406_at	18255_at
13433_at	18284_at
13550_at	18301_s_at
13672_s_at	18312_s_at
13716_at	18326_s_at
13842_at	18599_at
13933_at	18672_s_at
13995_at	18720_s_at
14062_at	18768_at
14075_at	18814_at
14162_at	18877_at
14208_at	18921_g_at
14217_at	18960_at
14235_at	19060_at
14310_at	19182_at
14431_at	19192_at
14513_s_at	19266_at
14584_at	19369_at
14604_at	19386_at
14673_s_at	19402_at
14856_s_at	19412_at
15207_s_at	19432_s_at
15338_at	19469_at
15406_at	19622_g_at
15418_at	19819_s_at
15591_s_at	19826_at
15666_s_at	20152_at
15680_s_at	20223_at
15866_s_at	20235_i_at
15918_at	20365_s_at
16340_at	20470_at
16553_f_at	20537_at
16797_at	20547_at

TABLE 13: 2X UP IN MANNITOL, 3 HR ONLY

12039_at	17449_s_at
12068_at	17481_at
12139_at	17533_s_at
12212_at	17923_s_at
12278_at	17944_at
12366_s_at	18059_i_at
12453_at	18216_at
12556_at	18230_at
12575_s_at	18255_at
12746_i_at	18301_s_at
12848_at	18312_s_at
12869_s_at	18326_s_at
12920_at	18599_at
12921_s_at	18720_s_at
13041_s_at	18768_at
13059_at	18814_at
13241_s_at	18877_at
13382_at	18921_g_at
13406_at	18960_at
13433_at	19060_at
13550_at	19192_at
13672_s_at	19266_at
13933_at	19369_at
13995_at	19386_at
14062_at	19402_at
14075_at	19412_at
14162_at	19432_s_at
14217_at	19469_at
14310_at	19622_g_at
14431_at	19819_s_at
14513_s_at	20152_at
14584_at	20223_at
14604_at	20235_i_at
14673_s_at	20365_s_at
14856_s_at	20470_at
15207_s_at	20537_at
15338_at	
15418_at	
15591_s_at	
15866_s_at	
15918_at	
16340_at	
16553_f_at	
16797_at	
16832_at	
17037_s_at	
17054_s_at	
17083_s_at	
17097_s_at	
17270_at	
17305_at	
17376_at	
17378_at	

TABLE 14: 2X DOWN IN MANNITOL, ONLY

12028_at	14897_at	17958_at
12033_at	14918_at	18012_s_at
12110_at	15082_at	18227_at
12114_at	15084_at	18272_at
12189_at	15098_s_at	18331_s_at
12191_at	15105_s_at	18369_at
12211_at	15121_s_at	18411_at
12223_s_at	15126_s_at	18533_at
12268_at	15168_s_at	18576_s_at
12345_at	15271_at	18640_at
12381_at	15429_at	18696_s_at
12406_s_at	15548_at	18945_at
12412_at	15672_s_at	18949_at
12522_at	15753_at	18953_at
12571_s_at	15867_at	18965_at
12662_at	15999_s_at	19164_g_at
12787_at	16001_at	19322_at
12847_at	16021_s_at	19366_s_at
12895_at	16190_at	19371_at
12911_s_at	16260_at	19397_at
13027_at	16303_at	19427_s_at
13075_i_at	16363_at	19681_at
13221_at	16458_s_at	19707_s_at
13262_s_at	16468_at	19839_at
13283_s_at	16475_at	19961_s_at
13386_s_at	16513_s_at	19976_at
13447_s_at	16529_at	19998_at
13482_at	16563_s_at	20002_at
13634_s_at	16690_g_at	20034_i_at
13709_s_at	16814_at	20136_at
13732_at	16847_at	20382_s_at
13733_i_at	16927_s_at	20407_at
13812_s_at	16976_s_at	20529_at
13825_s_at	17007_at	20626_at
13860_s_at	17014_s_at	20631_s_at
13868_at	17016_s_at	20647_at
13901_at	17071_s_at	20699_at
14052_at	17090_s_at	
14224_at	17257_s_at	
14244_s_at	17275_i_at	
14254_s_at	17424_at	
14256_f_at	17464_at	
14354_at	17468_at	
14476_at	17511_s_at	
14568_s_at	17519_s_at	
14634_s_at	17525_s_at	
14646_s_at	17645_s_at	
14660_s_at	17741_at	
14686_s_at	17815_s_at	
14726_s_at	17897_at	
14848_s_at	17899_at	
14873_at	17934_at	
14883_at	17937_s_at	



TABLE 15

## COLD &amp; OSOMOTIC STRESS RESPONSIVE SEQUENCES

SEQ AFFYMETRIX		SEQ AFFYMETRIX		SEQ AFFYMETRIX	
ID NO:	ID NO:	ID NO:	ID NO:	ID NO:	ID NO:
1699	12040_AT	1742	13262_S_AT	1787	14431_AT
1700	12048_AT	1743	13286_S_AT	1788	14480_AT
1701	12054_S_AT	1744	13324_AT	1789	14497_AT
1702	12077_AT	1745	13340_S_AT	1790	14553_AT
1703	12107_I_AT	1746	13361_AT	1791	14584_AT
1704	12113_AT	1747	13406_AT	1792	14600_AT
1705	12154_AT	1748	13441_S_AT	1793	14673_S_AT
1706	12171_AT	1749	13513_AT		19432_S_AT
1707	12212_AT	1750	13550_AT	1794	14681_G_AT
1708	12278_AT	1751	13573_AT	1795	14699_AT
1709	12317_AT	1752	13577_S_AT	1796	14751_AT
1710	12325_AT	1753	13606_AT	1797	14762_AT
1711	12333_AT	1754	13609_AT	1798	14828_S_AT
1712	12345_AT	1755	13625_S_AT	1799	14856_S_AT
1713	12349_S_AT	1756	13626_AT	1800	14882_AT
	14254_S_AT	1757	13634_S_AT	1801	14897_AT
	14256_F_AT	1758	13672_S_AT	1802	14978_AT
1714	12356_AT		18916_S_AT	1803	14985_S_AT
1715	12380_AT	1759	13709_S_AT	1804	15031_AT
1716	12392_AT	1760	13736_AT	1805	15084_AT
1717	12460_S_AT	1761	13775_AT	1806	15096_AT
1718	12556_AT	1762	13810_AT	1807	15105_S_AT
1719	12575_S_AT	1763	13812_S_AT	1808	15110_S_AT
1720	12686_S_AT	1764	13825_S_AT	1809	15111_S_AT
1721	12701_I_AT	1765	14015_S_AT	1810	15120_S_AT
1722	12754_G_AT		14016_S_AT	1811	15126_S_AT
1723	12782_R_AT	1766	14029_AT	1812	15142_S_AT
1724	12784_AT	1767	14036_AT	1813	15144_S_AT
1725	12879_S_AT	1768	14051_AT	1814	15184_S_AT
1726	12891_AT	1769	14060_AT	1815	15198_S_AT
	16817_S_AT	1770	14064_AT	1816	15203_S_AT
1727	12898_G_AT	1771	14066_AT	1817	15207_S_AT
1728	12974_AT	1772	14075_AT	1818	15240_AT
1729	12998_AT	1773	14094_S_AT	1819	15366_AT
1730	13041_S_AT		19999_S_AT	1820	15398_AT
1731	13124_AT	1774	14096_AT	1821	15406_AT
1732	13134_S_AT	1775	14104_AT	1822	15448_AT
1733	13144_AT	1776	14123_S_AT	1823	15466_AT
1734	13147_AT	1777	14126_S_AT	1824	15481_AT
1735	13152_S_AT	1778	14131_AT	1825	15484_AT
1736	13187_I_AT	1779	14136_AT	1826	15549_AT
	16981_S_AT	1780	14139_AT	1827	15591_S_AT
1737	13192_S_AT		14140_AT	1828	15606_S_AT
	17525_S_AT	1781	14162_AT	1829	15614_S_AT
1738	13212_S_AT		14217_AT		16927_S_AT
		1782	14178_AT	1830	15629_S_AT
1739	13215_S_AT	1783	14201_AT	1831	15633_S_AT
	16649_S_AT	1784	14208_AT	1832	15641_S_AT
1740	13241_S_AT	1785	14235_AT		18012_S_AT
1741	13246_AT	1786	14242_S_AT	1833	15720_AT

TABLE 15 (cont)

1834	15815_S_AT	1884	17452_G_AT	1936	19469_AT
1835	15817_AT	1885	17540_S_AT	1937	19473_AT
1836	15837_AT	1886	17552_S_AT	1938	19597_S_AT
1837	15841_AT	1887	17571_AT	1939	19710_S_AT
1838	15866_S_AT	1888	17589_AT	1940	19830_AT
	18255_AT	1889	17641_G_AT	1941	19839_AT
1839	15872_AT	1890	17741_AT	1942	19840_S_AT
	18331_S_AT		18098_AT	1943	19853_AT
1840	15892_AT	1891	17766_AT	1944	19860_AT
1841	15933_AT	1892	17873_S_AT	1945	19880_AT
1842	15947_AT	1893	17904_AT	1946	19889_AT
1843	15959_S_AT	1894	17920_S_AT	1947	19898_AT
1844	16001_AT	1895	17925_AT	1948	19914_AT
1845	16052_AT	1896	17943_AT	1949	19924_AT
1846	16161_S_AT	1897	18059_I_AT	1950	19949_AT
1847	16204_AT	1898	18230_AT	1951	19976_AT
1848	16232_S_AT	1899	18263_AT	1952	19998_AT
1849	16252_AT	1900	18272_AT	1953	20030_AT
1850	16260_AT	1901	18540_AT	1954	20151_AT
1851	16266_AT	1902	18608_AT	1955	20152_AT
1852	16299_AT	1903	18647_AT	1956	20187_AT
1853	16365_AT	1904	18662_S_AT	1957	20214_I_AT
1854	16468_AT	1905	18664_AT	1958	20269_AT
1855	16477_AT	1906	18695_S_AT	1959	20271_AT
1856	16491_AT	1907	18704_AT	1960	20273_AT
1857	16523_S_AT	1908	18814_AT	1961	20299_AT
1858	16566_S_AT	1909	18907_S_AT	1962	20323_AT
1859	16570_S_AT	1910	18921_G_AT	1963	20429_S_AT
1860	16688_AT	1911	18924_AT	1964	20457_AT
1861	16840_AT	1912	18949_AT	1965	20480_S_AT
1862	16847_AT		19707_S_AT	1966	20529_AT
1863	16893_AT	1913	18995_AT	1967	20547_AT
1864	16896_S_AT	1914	19017_AT	1968	20555_S_AT
1865	16898_S_AT	1915	19034_AT	1969	20699_AT
1866	16912_S_AT	1916	19063_AT		
1867	16980_AT	1917	19142_AT		
1868	16993_AT	1918	19158_AT		
1869	17008_AT	1919	19180_AT		
1870	17012_S_AT	1920	19187_AT		
1871	17014_S_AT	1921	19192_AT		
1872	17016_S_AT	1922	19195_AT		
1873	17032_S_AT	1923	19199_AT		
1874	17050_S_AT	1924	19231_AT		
	17051_S_AT	1925	19263_AT		
1875	17071_S_AT	1926	19308_AT		
1876	17090_S_AT	1927	19322_AT		
	18690_S_AT	1928	19365_S_AT		
1877	17097_S_AT	1929	19372_AT		
1878	17104_S_AT	1930	19389_AT		
1879	17119_S_AT	1931	19392_AT		
1880	17160_AT	1932	19397_AT		
1881	17305_AT	1933	19400_AT		
1882	17424_AT	1934	19402_AT		
1883	17449_S_AT	1935	19458_AT		

TABLE 16: 2X UP IN MANNITOL &amp; COLD, ONLY

12345_at	17066_s_at
12784_at	17540_s_at
13153_r_at	17567_at
13212_s_at	17766_at
13215_s_at	17904_at
13246_at	17920_s_at
13262_s_at	17943_at
13361_at	18263_at
13625_s_at	18351_s_at
13764_at	18662_s_at
13810_at	18670_g_at
14015_s_at	18695_s_at
14016_s_at	18704_at
14060_at	18729_at
14096_at	18995_at
14123_s_at	19158_at
14139_at	19473_at
14219_at	19710_s_at
14248_at	19883_at
14254_s_at	19889_at
14256_f_at	20030_at
14609_at	20269_at
14636_s_at	20271_at
14681_g_at	20299_at
14699_at	20429_s_at
14704_s_at	20438_at
14828_s_at	20480_s_at
14882_at	
15110_s_at	
15184_s_at	
15448_at	
15629_s_at	
15720_at	
15846_at	
15947_at	
16161_s_at	
16365_at	
16427_at	
16566_s_at	
16570_s_at	
16649_s_at	
16688_at	
16712_at	
16817_s_at	
16840_at	
16893_at	
16912_s_at	
16916_s_at	
16927_s_at	
16981_s_at	
17012_s_at	
17014_s_at	
17051_s_at	

TABLE 17: 2X DOWN COLD &amp; MANNITOL, ONLY

12040_at	14553_at	17873_s_at
12048_at	14612_at	17925_at
12054_s_at	14751_at	18098_at
12077_at	14762_at	18540_at
12107_i_at	14978_at	18608_at
12113_at	14985_s_at	18647_at
12154_at	15031_at	18664_at
12171_at	15096_at	18690_s_at
12317_at	15111_s_at	18725_s_at
12325_at	15120_s_at	18924_at
12333_at	15142_s_at	19017_at
12356_at	15198_s_at	19034_at
12380_at	15203_s_at	19063_at
12392_at	15240_at	19141_at
12460_s_at	15366_at	19142_at
12686_s_at	15392_at	19180_at
12701_i_at	15398_at	19187_at
12782_r_at	15466_at	19195_at
12879_s_at	15481_at	19199_at
12898_g_at	15484_at	19231_at
12974_at	15549_at	19308_at
12998_at	15623_f_at	19372_at
13144_at	15815_s_at	19392_at
13147_at	15817_at	19400_at
13152_s_at	15841_at	19458_at
13192_s_at	15892_at	19597_s_at
13286_s_at	15933_at	19762_at
13324_at	15959_s_at	19830_at
13340_s_at	16052_at	19853_at
13441_s_at	16204_at	19869_at
13513_at	16252_at	19880_at
13573_at	16266_at	19898_at
13606_at	16299_at	19914_at
13609_at	16477_at	19924_at
13626_at	16491_at	19949_at
13736_at	16561_s_at	20151_at
13775_at	16645_s_at	20187_at
14029_at	16898_s_at	20214_i_at
14036_at	16980_at	20273_at
14051_at	17008_at	20323_at
14064_at	17104_s_at	20457_at
14066_at	17160_at	20555_s_at
14094_s_at	17317_at	
14104_at	17400_s_at	
14126_s_at	17452_g_at	
14131_at	17477_s_at	
14136_at	17500_s_at	
14178_at	17552_s_at	
14192_at	17571_at	
14201_at	17572_s_at	
14242_s_at	17589_at	
14480_at	17641_g_at	
14497_at	17855_at	

TABLE 18

## COLD &amp; SALINE STRESS RESPONSIVE SEQUENCES

SEQ AFFYMETRIX	2018	13544_AT	2062	15047_AT
ID NO: ID NO:	2019	13549_AT	2063	15063_AT
1970 12021_AT	2020	13565_AT	2064	15085_S_AT
1971 12037_AT	SEQ AFFYMETRIX		2065	15123_S_AT
1972 12094_AT	ID NO: ID NO:		2066	15133_S_AT
1973 12098_AT	2021	13580_AT	2067	15137_S_AT
1974 12128_AT	2022	13588_AT	SEQ AFFYMETRIX	
1975 12148_AT	2023	13649_AT	ID NO: ID NO:	
1976 12151_AT	2024	13652_AT	2068	15153_S_AT
1977 12357_S_AT	2025	13679_S_AT	2069	15170_S_AT
1978 12394_AT	2026	13696_AT	2070	15172_S_AT
1979 12472_S_AT	2027	13702_S_AT	2071	15182_S_AT
1980 12475_AT	2028	13751_AT	2072	15190_S_AT
1981 12482_S_AT	2029	13919_AT	2073	15241_S_AT
1982 12490_AT	2030	13943_AT	2074	15389_AT
1983 12505_S_AT	2031	13950_S_AT	2075	15453_S_AT
1984 12531_AT	2032	14050_AT	2076	15495_AT
1985 12540_S_AT	2033	14055_S_AT	2077	15496_AT
1986 12541_AT		16166_S_AT	2078	15519_S_AT
1987 12577_AT	2034	14067_AT	2079	15562_AT
1988 12594_AT	2035	14078_AT	2080	15580_S_AT
1989 12629_AT	2036	14110_I_AT	2081	15582_S_AT
1990 12642_AT	2037	14144_AT	2082	15638_S_AT
1991 12656_AT	2038	14232_AT		18751_F_AT
1992 12660_AT	2039	14285_AT	2083	15646_S_AT
1993 12712_F_AT	2040	14346_AT	2084	15647_S_AT
1994 12725_R_AT	2041	14432_AT	2085	15654_S_AT
1995 12745_AT	2042	14468_AT	2086	15655_S_AT
1996 12777_I_AT	2043	14479_AT	2087	15658_S_AT
1997 12790_S_AT	2044	14524_S_AT	2088	15670_S_AT
1998 12798_AT	2045	14608_AT	2089	15775_AT
1999 12801_AT	2046	14621_AT	2090	15798_AT
2000 12855_F_AT	2047	14635_S_AT	2091	15930_AT
2001 12887_S_AT		17128_S_AT	2092	15931_AT
2002 12933_R_AT	2048	14640_S_AT	2093	15949_S_AT
2003 12951_AT	2049	14643_S_AT	2094	16017_AT
2004 13005_AT	2050	14663_S_AT	2095	16053_I_AT
2005 13015_S_AT	2051	14668_S_AT	2096	16078_S_AT
2006 13115_AT	2052	14688_S_AT	2097	16086_S_AT
2007 13178_AT		18279_S_AT	2098	16120_S_AT
2008 13228_AT	2053	14737_S_AT	2099	16126_S_AT
2009 13236_S_AT	2054	14768_AT	2100	16150_S_AT
16646_S_AT	2055	14875_AT	2101	16159_S_AT
2010 13266_S_AT	2056	14911_S_AT	2102	16230_AT
15211_S_AT		17056_S_AT	2103	16306_AT
2011 13275_F_AT	2057	14924_AT	2104	16367_I_AT
2012 13335_AT	2058	14956_S_AT	2105	16417_S_AT
2013 13362_S_AT		15148_S_AT		18083_R_AT
2014 13428_AT		18673_AT	2106	16418_S_AT
2015 13464_AT	2059	14964_AT	2107	16423_AT
2016 13480_AT	2060	15022_AT	2108	16449_S_AT
2017 13538_AT	2061	15040_G_AT	2109	16484_S_AT

TABLE 18 (cont)

2110	16489_AT	2163	18455_AT	2218	20565_AT
2111	16565_S_AT	2164	18459_AT	2219	20570_AT
2112	16596_S_AT	2165	18571_AT	2220	20576_AT
2113	16600_S_AT	2166	18604_AT	2221	20577_AT
2114	16603_S_AT		19181_S_AT	2222	20609_AT
2115	16638_S_AT	2167	18644_AT	2223	20646_AT
2116	16642_S_AT	2168	18745_F_AT	2224	20672_AT
2117	16763_AT		19611_S_AT	2225	20707_S_AT
2118	16914_S_AT	2169	18782_AT	2226	20720_AT
2119	16968_AT	2170	18881_AT		
2120	16983_AT	2171	18904_S_AT		
2121	16989_AT	2172	18914_S_AT		
2122	17002_AT	2173	18963_AT		
2123	17015_S_AT	2174	19068_I_AT		
2124	17040_S_AT	2175	19078_AT		
	18913_S_AT	2176	19171_AT		
2125	17232_AT	2177	19177_AT		
2126	17380_AT	2178	19394_AT		
2127	17394_S_AT	2179	19411_AT		
	20640_S_AT	2180	19415_AT		
2128	17398_AT	2181	19466_S_AT		
2129	17448_AT	2182	19484_S_AT		
2130	17485_S_AT	2183	19549_S_AT		
2131	17490_S_AT	2184	19592_AT		
2132	17499_S_AT	2185	19633_AT		
2133	17505_S_AT	2186	19641_AT		
2134	17516_S_AT	2187	19669_AT		
2135	17529_S_AT	2188	19672_AT		
2136	17543_S_AT	2189	19684_AT		
2137	17593_R_AT	2190	19692_AT		
	19858_S_AT	2191	19746_AT		
2138	17609_AT	2192	19835_AT		
2139	17698_AT	2193	19848_S_AT		
2140	17836_AT	2194	19892_AT		
2141	17886_AT	2195	19904_AT		
2142	17896_AT	2196	19936_AT		
2143	17901_AT	2197	19974_S_AT		
2144	17902_S_AT	2198	19994_AT		
2145	17913_S_AT	2199	20005_S_AT		
2146	17924_AT	2200	20022_AT		
2147	17954_S_AT	2201	20032_AT		
2148	17960_AT	2202	20044_AT		
2149	17991_G_AT	2203	20049_AT		
	18967_S_AT	2204	20081_AT		
2150	17999_AT	2205	20133_I_AT		
2151	18057_I_AT	2206	20155_S_AT		
2152	18078_AT	2207	20163_S_AT		
2153	18091_AT	2208	20200_AT		
2154	18168_S_AT	2209	20296_S_AT		
2155	18252_AT	2210	20336_AT		
2156	18267_AT	2211	20341_AT		
2157	18300_AT	2212	20372_AT		
2158	18308_I_AT	2213	20385_S_AT		
2159	18328_AT	2214	20433_AT		
2160	18354_AT	2215	20489_AT		
2161	18402_AT	2216	20525_AT		
2162	18416_AT	2217	20543_AT		

TABLE 19: 2X UP IN SALT &amp; COLD, ONLY

12004_at	15495_at	18745_f_at
12098_at	15496_at	18904_s_at
12148_at	15519_s_at	18914_s_at
12251_at	15580_s_at	18929_s_at
12357_s_at	15582_s_at	18946_at
12394_at	15776_at	18963_at
12457_at	15798_at	19078_at
12505_s_at	15910_at	19137_at
12522_at	15931_at	19141_at
12541_at	15937_at	19411_at
12594_at	15949_s_at	19641_at
12606_at	15972_s_at	19672_at
12697_at	16048_at	19684_at
12745_at	16086_s_at	19692_at
12781_at	16120_s_at	19746_at
12798_at	16126_s_at	19762_at
12855_f_at	16150_s_at	19869_at
12945_at	16159_s_at	19894_at
12951_at	16230_at	19904_at
13005_at	16306_at	19936_at
13015_s_at	16418_s_at	19994_at
13115_at	16423_at	20005_s_at
13146_s_at	16449_s_at	20031_at
13335_at	16565_s_at	20044_at
13447_s_at	16603_s_at	20382_s_at
13480_at	16763_at	20406_g_at
13544_at	16968_at	20421_at
13549_at	16983_at	20525_at
13580_at	17002_at	20543_at
13649_at	17015_s_at	20565_at
13943_at	17019_s_at	20570_at
13950_s_at	17078_s_at	20640_s_at
14110_i_at	17232_at	20646_at
14144_at	17317_at	20720_at
14224_at	17394_s_at	
14432_at	17516_s_at	
14468_at	17585_s_at	
14479_at	17609_at	
14524_s_at	17698_at	
14640_s_at	17836_at	
14643_s_at	17896_at	
14735_s_at	17899_at	
14737_s_at	17902_s_at	
14768_at	17960_at	
14784_at	17963_at	
14924_at	18168_s_at	
15064_at	18252_at	
15127_s_at	18267_at	
15186_s_at	18308_i_at	
15189_s_at	18354_at	
15255_at	18402_at	
15389_at	18459_at	
15482_at	18484_at	

(B)

TABLE 20: 2X DOWN IN COLD &amp; SALT, ONLY

12021_at	15123_s_at	19394_at
12094_at	15153_s_at	19415_at
12128_at	15172_s_at	19466_s_at
12151_at	15190_s_at	19549_s_at
12332_s_at	15211_s_at	19592_at
12472_s_at	15241_s_at	19633_at
12475_at	15437_at	19669_at
12482_s_at	15562_at	19848_s_at
12490_at	15638_s_at	19858_s_at
12531_at	15647_s_at	19878_at
12540_s_at	15654_s_at	19892_at
12577_at	15655_s_at	19974_s_at
12629_at	15658_s_at	20022_at
12642_at	15695_s_at	20032_at
12660_at	15846_at	20049_at
12676_s_at	15930_at	20081_at
12712_f_at	16053_i_at	20155_s_at
12725_r_at	16078_s_at	20163_s_at
12777_i_at	16229_at	20296_s_at
12790_s_at	16465_at	20336_at
12801_at	16484_s_at	20341_at
12887_s_at	16596_s_at	20365_s_at
12933_r_at	16600_s_at	20372_at
13153_r_at	16642_s_at	20489_at
13228_at	16914_s_at	20491_at
13362_s_at	17027_s_at	20576_at
13428_at	17066_s_at	20577_at
13538_at	17083_s_at	20609_at
13565_at	17128_s_at	20672_at
13588_at	17380_at	
13696_at	17398_at	
13702_s_at	17448_at	
13716_at	17485_s_at	
13764_at	17490_s_at	
14050_at	17499_s_at	
14055_s_at	17505_s_at	
14069_at	17514_s_at	
14078_at	17593_r_at	
14232_at	17886_at	
14346_at	17913_s_at	
14608_at	17924_at	
14609_at	17954_s_at	
14621_at	17991_g_at	
14635_s_at	18057_i_at	
14663_s_at	18069_at	
14688_s_at	18328_at	
14691_at	18416_at	
14704_s_at	18604_at	
14875_at	18644_at	
14911_s_at	18881_at	
14964_at	19171_at	
15022_at	19181_s_at	
15085_s_at	19182_at	



TABLE 21

## OSMOTIC &amp; SALINE STRESS RESPONSIVE SEQUENCES

SEQ	AFFYMETRIX	SEQ	AFFYMETRIX	SEQ	AFFYMETRIX
ID NO:	ID NO:	ID NO:	ID NO:	ID NO:	ID NO:
2586	12126_S_AT	2634	16073_F_AT	2681	19409_AT
2587	12137_AT	2635	16114_S_AT	2682	19503_AT
2588	12227_AT	2636	16127_S_AT	2683	19826_AT
2589	12239_AT		18744_F_AT	2684	19847_S_AT
2590	12268_AT	2637	16190_AT	2685	19930_AT
2591	12369_AT	2638	16196_AT	2686	19992_AT
2592	12476_AT	2639	16236_G_AT	2687	20096_AT
2593	12484_G_AT		19531_AT	2688	20108_AT
2594	12494_AT	2640	16310_AT	2689	20256_S_AT
2595	12644_AT	2641	16316_AT	2690	20290_S_AT
2596	12645_AT	2642	16334_S_AT	2691	20298_AT
2597	12796_S_AT	2643	16335_AT	2692	20305_AT
2598	12819_AT	2644	16340_AT	2693	20322_AT
2599	12841_AT	2645	16450_S_AT	2694	20333_AT
2600	12852_S_AT	2646	16500_AT	2695	20402_S_AT
	19455_S_AT	2647	16524_AT	2696	20424_AT
2601	13084_AT	2648	16533_AT	2697	20446_S_AT
2602	13171_AT	2649	16690_G_AT	2698	20450_AT
2603	13174_R_AT	2650	16762_AT	2699	20468_AT
2604	13596_AT	2651	16819_AT	2700	20569_S_AT
2605	13807_AT	2652	16873_I_AT	2701	20639_AT
2606	13977_AT	2653	16972_AT	2702	20678_AT
2607	13999_AT	2654	16991_AT	2703	20686_AT
2608	14052_AT	2655	17099_S_AT		
2609	14293_AT	2656	17339_AT		
2610	14335_AT	2657	17397_S_AT		
2611	14486_AT	2658	17419_AT		
2612	14506_AT	2659	17460_AT		
2613	14518_AT	2660	17554_S_AT		
2614	14540_AT	2661	17939_AT		
2615	14578_S_AT	2662	18013_R_AT		
2616	14646_S_AT		18178_S_AT		
2617	14662_F_AT	2663	18024_S_AT		
	15962_S_AT	2664	18032_I_AT		
2618	14901_AT	2665	18054_AT		
2619	14918_AT	2666	18151_AT		
2620	14986_AT	2667	18281_AT		
2621	15053_S_AT	2668	18445_AT		
2622	15179_S_AT	2669	18520_AT		
2623	15252_G_AT	2670	18583_AT		
2624	15280_AT	2671	18663_S_AT		
2625	15467_AT	2672	18753_S_AT		
2626	15607_S_AT	2673	18876_AT		
2627	15625_S_AT	2674	18938_G_AT		
2628	15703_I_AT	2675	18971_AT		
2629	15827_AT	2676	18977_AT		
2630	15863_AT	2677	18981_AT		
2631	15923_AT	2678	19099_AT		
2632	15946_S_AT	2679	19196_AT		
2633	16005_S_AT	2680	19376_AT		

TABLE 22: 2X UP IN SALT &amp; MANNITOL, ONLY

12126_s_at	17548_s_at
12227_at	17554_s_at
12369_at	17961_at
12521_at	18032_i_at
12644_at	18054_at
12645_at	18151_at
12724_f_at	18167_s_at
12795_at	18281_at
12796_s_at	18520_at
12841_at	18663_s_at
12852_s_at	18744_f_at
12958_at	18753_s_at
13014_at	18789_at
13174_r_at	18876_at
13211_s_at	18909_s_at
13596_at	18938_g_at
13640_at	18977_at
13789_at	19099_at
13977_at	19108_at
13999_at	19135_at
14069_at	19227_at
14083_at	19376_at
14089_at	19429_at
14293_at	19455_s_at
14675_s_at	19531_at
15053_s_at	19789_s_at
15058_s_at	19878_at
15252_g_at	20017_at
15280_at	20096_at
15437_at	20256_s_at
15607_s_at	20290_s_at
15625_s_at	20305_at
15827_at	20322_at
15863_at	20333_at
15880_at	20420_at
16005_s_at	20424_at
16031_at	20689_s_at
16073_f_at	
16316_at	
16334_s_at	
16335_at	
16450_s_at	
16500_at	
16524_at	
16533_at	
16597_s_at	
16819_at	
17085_s_at	
17099_s_at	
17339_at	
17419_at	
17442_i_at	
17514_s_at	

TABLE 23: 2X DOWN IN MANNITOL &amp; SALT, ONLY

12239_at	20108_at
12251_at	20298_at
12476_at	20421_at
12484_g_at	20432_at
12494_at	20446_s_at
12561_at	20639_at
12647_s_at	
12719_f_at	
12819_at	
12841_at	
13084_at	
13171_at	
13172_s_at	
13435_at	
13807_at	
14250_r_at	
14335_at	
14486_at	
14506_at	
14518_at	
14901_at	
15046_s_at	
15179_s_at	
15451_at	
15703_i_at	
15946_s_at	
16014_s_at	
16114_s_at	
16310_at	
16342_at	
16712_at	
16762_at	
16972_at	
16991_at	
17397_s_at	
17408_at	
17460_at	
17775_at	
17939_at	
18445_at	
18583_at	
18751_f_at	
18971_at	
18981_at	
19156_s_at	
19196_at	
19359_s_at	
19409_at	
19503_at	
19713_at	
19718_at	
19847_s_at	
19930_at	

TABLE 24

## COLD, OSMOTIC &amp; SALINE RESPONSIVE SEQUENCES

SEQ	AFFYMETRIX	SEQ	AFFYMETRIX	SEQ	AFFYMETRIX
ID NO:	ID NO:	ID NO:	ID NO:	ID NO:	ID NO:
1262	12004_AT	1306	12945_AT	1347	13725_AT
1263	12023_S_AT	1307	12958_AT	1348	13764_AT
1264	12078_AT	1308	12964_AT	1349	13771_AT
1265	12115_AT	1309	12968_AT	1350	13789_AT
1266	12118_AT	1310	12972_AT	1351	13916_AT
1267	12150_AT	1311	12989_S_AT	1352	13965_S_AT
1268	12251_AT	1312	13004_AT	1353	13967_AT
1269	12271_S_AT	1313	13014_AT	1354	14028_AT
1270	12276_AT	1314	13025_AT	1355	14039_AT
1271	12332_S_AT	1315	13036_AT	1356	14046_AT
	13211_S_AT	1316	13099_S_AT	1357	14049_AT
1272	12338_AT	1317	13136_AT	1358	14069_AT
1273	12400_AT	1318	13146_S_AT	1359	14077_AT
1274	12430_AT		13239_S_AT	1360	14080_AT
1275	12457_AT	1319	13153_R_AT	1361	14083_AT
1276	12521_AT	1320	13159_AT	1362	14089_AT
1277	12522_AT	1321	13176_AT	1363	14090_I_AT
1278	12530_AT	1322	13217_S_AT	1364	14097_AT
1279	12536_S_AT		17500_S_AT	1365	14116_AT
1280	12538_AT	1323	13225_S_AT	1366	14151_AT
1281	12561_AT		15997_S_AT		14219_AT
1282	12574_AT	1324	13230_S_AT	1367	14170_AT
	19019_I_AT		15972_S_AT	1368	14172_AT
1283	12595_AT	1325	13279_S_AT	1369	14192_AT
1284	12606_AT		17477_S_AT	1370	14224_AT
1285	12609_AT	1326	13280_S_AT	1371	14227_AT
1286	12622_AT		20301_S_AT	1372	14244_S_AT
1287	12630_AT	1327	13282_S_AT		14245_AT
1288	12647_S_AT		17027_S_AT		14645_S_AT
1289	12676_S_AT	1328	13426_AT		15974_G_AT
1290	12697_AT	1329	13432_AT	1373	14248_AT
1291	12698_AT	1330	13435_AT	1374	14250_R_AT
1292	12719_F_AT	1331	13447_S_AT	1375	14367_AT
1293	12724_F_AT	1332	13474_AT	1376	14381_AT
	15871_S_AT	1333	13511_AT	1377	14384_AT
	16597_S_AT	1334	13546_AT	1378	14398_S_AT
1294	12749_AT	1335	13547_S_AT	1379	14487_AT
1295	12765_AT	1336	13548_AT	1380	14582_AT
1296	12769_AT	1337	13555_AT	1381	14597_AT
1297	12781_AT	1338	13587_AT	1382	14609_AT
1298	12785_AT	1339	13595_AT	1383	14612_AT
1299	12792_S_AT	1340	13610_S_AT		19267_S_AT
1300	12795_AT	1341	13627_AT	1384	14614_AT
1301	12805_S_AT	1342	13640_AT	1385	14636_S_AT
1302	12857_AT	1343	13645_AT	1386	14644_S_AT
1303	12883_S_AT	1344	13647_AT		14658_S_AT
1304	12909_S_AT	1345	13706_S_AT		14659_S_AT
	16539_S_AT		19701_S_AT		15964_S_AT
1305	12932_S_AT	1346	13716_AT	1387	14675_S_AT
	15605_S_AT		18228_AT		

TABLE 24 (cont)

1388	14691_AT	1443	15753_AT	1496	16789_AT
	14709_AT	1444	15761_AT	1497	16818_S_AT
1389	14704_S_AT	1445	15776_AT	1498	16971_S_AT
	15846_AT	1446	15778_AT	1499	17018_S_AT
1390	14705_I_AT	1447	15839_AT	1500	17019_S_AT
1391	14733_S_AT	1448	15842_AT	1501	17029_S_AT
1392	14735_S_AT	1449	15857_S_AT	1502	17041_S_AT
1393	14779_AT	1450	15859_AT	1503	17047_S_AT
1394	14784_AT	1451	15880_AT	1504	17066_S_AT
1395	14923_AT	1452	15886_AT	1505	17085_S_AT
1396	14947_AT	1453	15906_S_AT	1506	17089_S_AT
1397	14950_AT	1454	15910_AT	1507	17179_AT
1398	14990_AT	1455	15937_AT	1508	17180_AT
1399	14998_AT	1456	15957_AT	1509	17228_AT
1400	15005_S_AT	1457	15970_S_AT	1510	17252_AT
1401	15018_AT	1458	15985_AT	1511	17317_AT
1402	15045_AT	1459	16010_S_AT	1512	17338_AT
1403	15046_S_AT		16011_S_AT	1513	17384_AT
1404	15052_AT		17078_S_AT	1514	17387_S_AT
1405	15058_S_AT	1460	16021_S_AT	1515	17400_S_AT
1406	15064_AT	1461	16031_AT	1516	17407_S_AT
1407	15088_S_AT	1462	16038_S_AT	1517	17408_AT
1408	15098_S_AT	1463	16045_S_AT	1518	17413_S_AT
1409	15103_S_AT	1464	16046_S_AT	1519	17416_AT
1410	15109_S_AT	1465	16048_AT	1520	17425_S_AT
1411	15124_S_AT	1466	16061_S_AT	1521	17440_I_AT
1412	15127_S_AT	1467	16082_S_AT	1522	17442_I_AT
1413	15145_S_AT	1468	16111_F_AT	1523	17473_AT
1414	15154_S_AT	1469	16115_S_AT	1524	17484_AT
1415	15161_S_AT	1470	16141_S_AT	1525	17514_S_AT
1416	15189_S_AT	1471	16144_S_AT	1526	17520_S_AT
1417	15214_S_AT	1472	16163_S_AT	1527	17533_S_AT
1418	15255_AT	1473	16173_S_AT	1528	17548_S_AT
1419	15356_AT	1474	16229_AT		19614_AT
1420	15357_AT	1475	16298_AT	1529	17549_S_AT
1421	15364_AT	1476	16301_S_AT	1530	17555_S_AT
1422	15392_AT	1477	16322_AT	1531	17567_AT
1423	15403_S_AT	1478	16342_AT	1532	17654_AT
1424	15437_AT	1479	16351_AT	1533	17693_AT
1425	15451_AT	1480	16412_S_AT	1534	17697_AT
1426	15476_AT	1481	16422_AT	1535	17722_AT
1427	15482_AT	1482	16427_AT	1536	17752_AT
1428	15483_S_AT	1483	16438_AT	1537	17755_AT
1429	15521_S_AT	1484	16474_S_AT	1538	17775_AT
1430	15522_I_AT	1485	16482_S_AT	1539	17832_S_AT
1431	15531_I_AT	1486	16485_S_AT	1540	17840_S_AT
1432	15573_AT		18052_S_AT	1541	17843_S_AT
1433	15581_S_AT	1487	16493_AT	1542	17855_AT
1434	15586_S_AT	1488	16534_S_AT	1543	17860_AT
1435	15594_S_AT	1489	16555_S_AT	1544	17869_AT
1436	15609_S_AT	1490	16561_S_AT	1545	17888_AT
1437	15611_S_AT		17572_S_AT	1546	17899_AT
1438	15621_F_AT	1491	16592_S_AT	1547	17929_S_AT
1439	15623_F_AT	1492	16615_S_AT	1548	17930_S_AT
1440	15669_S_AT	1493	16637_S_AT	1549	17932_S_AT
1441	15695_S_AT	1494	16692_AT	1550	17936_S_AT
1442	15702_S_AT	1495	16712_AT		18670_G_AT

TABLE 24 (cont)

1551	17957_AT	1606	19152_AT	1663	20040_AT
1552	17961_AT	1607	19156_S_AT	1664	20042_S_AT
1553	17962_AT	1608	19182_AT	1665	20060_AT
1554	17963_AT	1609	19186_S_AT		20438_AT
1555	17971_S_AT	1610	19214_AT	1666	20089_AT
1556	17975_AT	1611	19216_AT	1667	20118_AT
	18742_F_AT	1612	19227_AT	1668	20144_AT
1557	18016_R_AT	1613	19243_AT	1669	20149_AT
1558	18069_AT	1614	19288_AT	1670	20179_AT
1559	18122_AT	1615	19359_S_AT	1671	20190_AT
1560	18140_AT	1616	19368_AT	1672	20194_AT
1561	18199_AT	1617	19379_AT	1673	20219_AT
1562	18224_S_AT	1618	19380_S_AT	1674	20245_S_AT
1563	18225_AT	1619	19398_AT	1675	20263_AT
1564	18235_AT	1620	19421_AT	1676	20308_S_AT
1565	18259_S_AT	1621	19424_AT	1677	20335_S_AT
1566	18265_AT	1622	19429_AT	1678	20338_AT
1567	18270_AT1568	1623	19430_AT	1679	20345_AT
	18280_AT	1624	19450_AT	1680	20365_S_AT
1569	18289_AT	1625	19457_AT	1681	20382_S_AT
1570	18296_AT	1626	19467_AT	1682	20390_S_AT
1571	18298_AT	1627	19516_AT	1683	20395_AT
1572	18314_I_AT	1628	19545_AT	1684	20420_AT
1573	18318_AT	1629	19564_AT	1685	20421_AT
1574	18325_AT	1630	19577_AT	1686	20432_AT
1575	18351_S_AT	1631	19593_AT	1687	20437_AT
1576	18471_AT	1632	19602_AT	1688	20442_I_AT
1577	18482_S_AT	1633	19618_AT	1689	20463_S_AT
1578	18484_AT	1634	19638_AT	1690	20491_AT
1579	18560_AT	1635	19640_AT	1691	20537_AT
1580	18564_AT	1636	19646_S_AT	1692	20573_AT
1581	18590_AT	1637	19656_S_AT	1693	20636_AT
1582	18594_AT	1638	19670_AT	1694	20638_AT
1583	18595_AT	1639	19696_AT	1695	20641_AT
1584	18596_AT	1640	19713_AT	1696	20658_S_AT
1585	18629_S_AT	1641	19718_AT	1697	20689_S_AT
1586	18637_AT	1642	19722_S_AT	1698	20698_S_AT
1587	18661_AT	1643	19749_AT		
1588	18668_AT	1644	19755_AT		
1589	18699_I_AT	1645	19762_AT		
1590	18747_F_AT	1646	19789_S_AT		
	18789_AT	1647	19815_AT		
1591	18761_AT	1648	19843_AT		
1592	18833_AT	1649	19869_AT		
1593	18875_S_AT	1650	19878_AT		
1594	18894_AT	1651	19883_AT		
1595	18936_AT	1652	19894_AT		
1596	18946_AT	1653	19926_AT		
1597	18953_AT	1654	19944_AT		
1598	18955_AT	1655	19968_AT		
1599	18972_AT	1656	19977_AT		
1600	19008_S_AT	1657	19982_AT		
1601	19108_AT	1658	19987_AT		
1602	19123_AT	1659	19991_AT		
1603	19135_AT	1660	20015_AT		
1604	19137_AT	1661	20017_AT		
1605	19141_AT	1662	20031_AT		

TABLE 25: 2X UP IN COLD, SALT &amp; MANNITOL

12023_s_at	14733_s_at	17047_s_at	19640_at
12332_s_at	14923_at	17179_at	19646_s_at
12530_at	14990_at	17180_at	19656_s_at
12536_s_at	15005_s_at	17252_at	19701_s_at
12574_at	15018_at	17384_at	19843_at
12595_at	15052_at	17407_s_at	19944_at
12698_at	15088_s_at	17484_at	19982_at
12749_at	15098_s_at	17520_s_at	19987_at
12765_at	15103_s_at	17555_s_at	19991_at
12769_at	15145_s_at	17572_s_at	20042_s_at
12785_at	15154_s_at	17722_at	20060_at
12857_at	15161_s_at	17752_at	20118_at
12964_at	15214_s_at	17840_s_at	20144_at
12972_at	15356_at	17843_s_at	20149_at
12989_s_at	15521_s_at	17860_at	20179_at
13004_at	15573_at	17929_s_at	20194_at
13025_at	15586_s_at	17936_s_at	20245_s_at
13036_at	15609_s_at	17962_at	20390_s_at
13099_s_at	15611_s_at	18052_s_at	20437_at
13136_at	15621_f_at	18069_at	20463_s_at
13176_at	15669_s_at	18122_at	20491_at
13220_s_at	15695_s_at	18199_at	20641_at
13225_s_at	15753_at	18259_s_at	20658_s_at
13230_s_at	15761_at	18280_at	
13239_s_at	15857_s_at	18289_at	
13426_at	15871_s_at	18314_i_at	
13474_at	15964_s_at	18318_at	
13548_at	15970_s_at	18325_at	
13555_at	15974_g_at	18482_s_at	
13595_at	15997_s_at	18590_at	
13627_at	16011_s_at	18594_at	
13645_at	16021_s_at	18595_at	
13647_at	16038_s_at	18596_at	
13706_s_at	16046_s_at	18629_s_at	
13965_s_at	16082_s_at	18661_at	
13967_at	16111_f_at	18668_at	
14080_at	16115_s_at	18699_i_at	
14090_i_at	16127_s_at	18722_s_at	
14097_at	16141_s_at	18936_at	
14116_at	16144_s_at	18953_at	
14151_at	16163_s_at	18955_at	
14172_at	16236_g_at	18972_at	
14192_at	16301_s_at	19008_s_at	
14244_s_at	16322_at	19152_at	
14245_at	16422_at	19186_s_at	
14367_at	16474_s_at	19214_at	
14398_s_at	16482_s_at	19368_at	
14582_at	16485_s_at	19379_at	
14614_at	16555_s_at	19380_s_at	
14644_s_at	16561_s_at	19421_at	
14645_s_at	16592_s_at	19545_at	
14658_s_at	16637_s_at	19614_at	
14659_s_at	17041_s_at	19638_at	

TABLE 26: 2X DOWN IN COLD, MANNITOL &amp; SALT, ONLY

12078_at	15189_s_at	17869_at	20015_at
12115_at	15357_at	17888_at	20040_at
12118_at	15364_at	17930_s_at	20089_at
12150_at	15403_s_at	17932_s_at	20190_at
12271_s_at	15476_at	17957_at	20219_at
12276_at	15483_s_at	17963_at	20263_at
12338_at	15522_i_at	17971_s_at	20301_s_at
12400_at	15531_i_at	17975_at	20308_s_at
12430_at	15594_s_at	18016_r_at	20338_at
12538_at	15702_s_at	18140_at	20345_at
12622_at	15778_at	18224_s_at	20395_at
12630_at	15839_at	18225_at	20442_i_at
12792_s_at	15842_at	18228_at	20537_at
12805_s_at	15859_at	18235_at	20573_at
12883_s_at	15872_at	18265_at	20636_at
12909_s_at	15880_at	18270_at	20638_at
12932_s_at	15886_at	18296_at	20698_s_at
12968_at	15906_s_at	18298_at	
13159_at	15957_at	18471_at	
13217_s_at	15985_at	18564_at	
13279_s_at	16045_s_at	18637_at	
13282_s_at	16061_s_at	18742_f_at	
13432_at	16173_s_at	18761_at	
13511_at	16298_at	18833_at	
13546_at	16351_at	18875_s_at	
13547_s_at	16412_s_at	18894_at	
13587_at	16438_at	18946_at	
13610_s_at	16493_at	19123_at	
13640_at	16534_s_at	19216_at	
13725_at	16539_s_at	19243_at	
13771_at	16615_s_at	19267_s_at	
13916_at	16692_at	19288_at	
14028_at	16789_at	19398_at	
14039_at	16818_s_at	19424_at	
14046_at	16971_s_at	19430_at	
14049_at	17018_s_at	19450_at	
14077_at	17029_s_at	19457_at	
14170_at	17089_s_at	19467_at	
14227_at	17228_at	19516_at	
14248_at	17338_at	19564_at	
14381_at	17387_s_at	19577_at	
14384_at	17413_s_at	19593_at	
14487_at	17416_at	19602_at	
14597_at	17425_s_at	19618_at	
14705_i_at	17440_i_at	19670_at	
14709_at	17473_at	19696_at	
14779_at	17533_s_at	19722_s_at	
14947_at	17549_s_at	19749_at	
14950_at	17654_at	19755_at	
14998_at	17693_at	19815_at	
15045_at	17697_at	19926_at	
15109_s_at	17755_at	19968_at	
15124_s_at	17832_s_at	19977_at	



TABLE 27: 2X ROOT SPECIFIC (COLD, SALINE &amp; OSMOTIC STRESSES)

11997_at	14069_at	16052_at	18327_s_at
12004_at	14072_at	16053_i_at	18597_at
12051_at	14073_at	16105_s_at	18607_s_at
12072_at	14097_at	16161_s_at	18636_at
12150_at	14139_at	16165_s_at	18663_s_at
12151_at	14235_at	16298_at	18782_at
12166_i_at	14250_r_at	16334_s_at	18885_at
12219_at	14578_s_at	16422_at	18888_at
12315_at	14582_at	16427_at	18942_at
12332_s_at	14640_s_at	16440_s_at	18955_at
12374_i_at	14643_s_at	16442_s_at	19060_at
12482_s_at	14644_s_at	16468_at	19108_at
12515_at	14658_s_at	16488_at	19135_at
12522_at	14659_s_at	16511_at	19137_at
12538_at	14711_s_at	16529_at	19195_at
12571_s_at	14900_at	16553_f_at	19263_at
12574_at	14924_at	16568_s_at	19376_at
12609_at	14990_at	16914_s_at	19406_at
12678_i_at	15018_at	16965_s_at	19432_s_at
12698_at	15022_at	16981_s_at	19835_at
12749_at	15107_s_at	16989_at	19836_at
12760_g_at	15116_f_at	17033_s_at	19840_s_at
12765_at	15120_s_at	17066_s_at	19841_at
12768_at	15124_s_at	17085_s_at	19843_at
12769_at	15131_s_at	17252_at	19926_at
12772_at	15132_s_at	17376_at	19972_at
12777_i_at	15137_s_at	17378_at	19977_at
12958_at	15184_s_at	17388_at	19991_at
12989_s_at	15188_s_at	17415_at	20034_i_at
13015_s_at	15208_s_at	17429_s_at	20042_s_at
13134_s_at	15252_g_at	17463_at	20189_at
13146_s_at	15343_at	17485_s_at	20194_at
13172_s_at	15389_at	17490_s_at	20200_at
13178_at	15392_at	17567_at	20214_i_at
13179_at	15448_at	17585_s_at	20239_g_at
13187_i_at	15503_at	17595_s_at	20262_at
13211_s_at	15531_i_at	17840_s_at	20269_at
13239_s_at	15594_s_at	17860_at	20294_at
13273_s_at	15609_s_at	17880_s_at	20312_s_at
13297_s_at	15623_f_at	17894_at	20382_s_at
13549_at	15639_s_at	17896_at	20396_at
13604_at	15670_s_at	17899_at	20432_at
13629_s_at	15680_s_at	17911_at	20444_at
13706_s_at	15859_at	17935_at	20446_s_at
13714_at	15900_at	17961_at	20480_s_at
13751_at	15923_at	18024_s_at	20586_i_at
13895_at	15962_s_at	18122_at	20612_s_at
13933_at	15964_s_at	18222_at	20672_at
13967_at	15965_at	18224_s_at	20686_at
13985_s_at	15975_s_at	18252_at	20689_s_at
14028_at	15985_at	18255_at	
14030_at	16001_at	18269_s_at	
14058_at	16048_at	18270_at	

TABLE 28: 2X LEAF SPECIFIC (COLD, SALINE &amp; OSMOTIC STRESSES)

12169_i_at	16136_s_at
12186_at	16172_s_at
12187_at	16316_at
12211_at	16385_s_at
12212_at	16455_at
12214_g_at	16485_s_at
12270_at	16512_s_at
12645_at	16547_s_at
12754_g_at	16548_s_at
12774_at	16629_s_at
12793_at	16673_at
12796_s_at	16899_at
12910_s_at	17010_s_at
12916_s_at	17018_s_at
12953_at	17054_s_at
13090_at	17095_s_at
13124_at	17097_s_at
13335_at	17273_at
13550_at	17394_s_at
13567_at	17420_at
13568_at	17449_s_at
13596_at	17600_s_at
13614_at	17843_s_at
13678_s_at	17913_s_at
13719_at	17966_at
14014_at	18003_at
14096_at	18081_at
14118_i_at	18560_at
14369_at	18588_at
14478_at	18626_at
14513_s_at	18644_at
14540_at	18666_s_at
14596_at	18742_f_at
14733_s_at	18977_at
14986_at	18994_at
15045_at	19227_at
15097_s_at	19373_at
15098_s_at	19834_at
15145_s_at	19867_at
15153_s_at	19998_at
15154_s_at	20062_at
15182_s_at	20199_at
15203_s_at	20256_s_at
15372_at	20284_at
15521_s_at	20437_at
15581_s_at	20442_i_at
15621_f_at	20450_at
15642_s_at	20468_at
15776_at	20547_at
15910_at	20635_s_at
16017_at	
16046_s_at	
16115_s_at	

TABLE 29: 2X TRANSCRIPTION (COLD, SALINE &amp; OSMOTIC STRESSES)

12068_at	15665_s_at	19836_at
12166_i_at	15679_s_at	19860_at
12374_i_at	15720_at	19866_at
12392_at	15871_s_at	19898_at
12431_at	16072_s_at	20262_at
12450_s_at	16073_f_at	20335_s_at
12503_at	16105_s_at	20362_at
12536_s_at	16111_f_at	20424_at
12540_s_at	16127_s_at	20437_at
12541_at	16534_s_at	20456_at
12587_at	16582_s_at	20515_s_at
12594_at	16589_s_at	20635_s_at
12595_at	16747_at	
12704_f_at	17019_s_at	
12705_f_at	17129_s_at	
12709_f_at	17160_at	
12712_f_at	17520_s_at	
12719_f_at	17538_s_at	
12724_f_at	17555_s_at	
12725_r_at	17609_at	
12726_f_at	17896_at	
12734_f_at	17971_s_at	
12736_f_at	17975_at	
12737_f_at	17978_s_at	
12812_at	18121_s_at	
12949_at	18167_s_at	
12951_at	18197_at	
12966_s_at	18222_at	
13023_at	18318_at	
13034_s_at	18576_s_at	
13087_at	18629_s_at	
13270_at	18738_f_at	
13273_s_at	18742_f_at	
13432_at	18744_f_at	
13555_at	18745_f_at	
13688_s_at	18747_f_at	
13714_at	18750_f_at	
13965_s_at	18751_f_at	
13987_s_at	18789_at	
14003_at	18834_at	
14144_at	18942_at	
14178_at	19083_at	
14223_at	19202_at	
14235_at	19209_s_at	
14303_s_at	19232_s_at	
14393_at	19315_at	
14553_at	19489_s_at	
14781_at	19611_s_at	
15046_s_at	19646_s_at	
15053_s_at	19707_s_at	
15214_s_at	19722_s_at	
15510_r_at	19744_at	
15638_s_at	19755_at	

TABLE 30: 2X PHOSPHATES (COLD, SALINE &amp; OSMOTIC STRESSES)

12470\_at  
12556\_at  
13128\_at  
13135\_s\_at  
13180\_s\_at  
13192\_s\_at  
13193\_s\_at  
13587\_at  
13995\_at  
14335\_at  
15073\_at  
15171\_s\_at  
15240\_at  
15586\_s\_at  
15641\_s\_at  
15651\_f\_at  
15990\_at  
16232\_s\_at  
16576\_f\_at  
16753\_at  
17423\_s\_at  
17525\_s\_at  
17537\_s\_at  
17929\_s\_at  
17954\_s\_at  
18012\_s\_at  
18308\_i\_at  
18616\_at  
18847\_at  
18936\_at  
18980\_at  
19243\_at  
19263\_at  
19638\_at  
19883\_at  
19932\_at  
20333\_at  
20393\_at  
20570\_at

TABLE 31: 2X KINASES (COLD, SALINE &amp; OSMOTIC STRESSES)

12253_g_at	16059_s_at	20144_at
12270_at	16087_s_at	20219_at
12271_s_at	16088_f_at	20223_at
12276_at	16125_s_at	20232_s_at
12278_at	16137_s_at	20235_i_at
12284_at	16140_s_at	20282_s_at
12300_at	16143_s_at	20298_at
12307_at	16144_s_at	20396_at
12353_at	16160_f_at	20439_at
12357_s_at	16171_s_at	20462_at
12390_at	16357_at	
12394_at	16412_s_at	
12395_s_at	16568_s_at	
12408_at	16570_s_at	
12452_at	16571_s_at	
12477_at	16584_s_at	
12490_at	16651_s_at	
12497_at	16652_s_at	
12532_at	16672_at	
12697_at	16818_s_at	
12901_s_at	16840_at	
12902_at	17068_s_at	
12958_at	17122_s_at	
12959_at	17252_at	
13068_at	17323_at	
13246_at	17475_at	
13324_at	17752_at	
13332_at	17921_s_at	
13362_s_at	17933_at	
13370_at	17935_at	
13550_at	18013_r_at	
14030_at	18046_s_at	
14048_at	18122_at	
14194_at	18176_at	
14196_at	18316_at	
14217_at	18455_at	
14459_at	18459_at	
14603_at	18482_s_at	
14637_s_at	18543_at	
14686_s_at	18706_s_at	
15005_s_at	18782_at	
15175_s_at	18924_at	
15270_at	19117_s_at	
15475_s_at	19437_s_at	
15497_s_at	19442_at	
15577_s_at	19458_at	
15616_s_at	19464_at	
15633_s_at	19469_at	
15634_s_at	19562_at	
15668_s_at	19655_at	
15680_s_at	19749_at	
15798_at	19854_at	
16034_at	19904_at	

TABLE 32

GenBank: accession numbers and source organisms for nucleotide and amino acid sequence homologs of the listed SEQ ID NO:

SEQ ID NO. 4	SEQ ID NO. 40		
AAG14455.1	BAB20583.1	Tulipa gesneriana	Zea mays
AAG14456.1	AAK13126.1	Tulipa gesneriana	Oryza sativa
AAG14454.1	CAC09578.1	Tulipa gesneriana	Fagus sylvatica
SEQ ID NO. 12	SEQ ID NO. 41		
BAB20886.1	BAB39155.1	Oryza sativa	Pisum sativum
CAA05081.1	AAG13663.1	Triticum turgidum subsp. durum	Zea mays
AAC19392.1	BAA90816.1	Mesembryanthemum crystallinum	Oryza sativa
CAA33082.1	AAC98090.1	Spinacia oleracea	Zea mays
AAC04671.1	AAC98091.1	Brassica napus	Oryza sativa
AAF88067.1		Triticum aestivum	
BAA25681.1		Brassica rapa	
AAC32111.1		Picea mariana	
AAG35777.1		Brassica oleracea var.	
alboglabra			
AAB53694.1	CAA61510.1	Brassica napus	Oryza sativa
BAA05546.1	AAF59906.1	Oryza sativa	Glycine max
BAA04864.1	AAF91322.1	Oryza sativa	Glycine max
AAB51522.1	AAF91324.1	Oryza sativa	Glycine max
CAA94534.1	AAF91323.1	Oryza sativa	Glycine max
CAA35827.1	AAF59905.1	Oryza sativa	Glycine max
CAA35826.1	AAC36318.1	Ricinus communis	Malus x domestica
	CAC20842.1	Spinacia oleracea	Pinus sylvestris
	AAB36558.1	Spinacia oleracea	Ipomoea nil
	BAA83373.1		Oryza sativa
	BAA84787.1		Oryza sativa
	AAF34426.1		Oryza sativa
	AAC49123.1	Nicotiana sylvestris	Oryza sativa
	AAF75791.1	Pisum sativum	Oryza longistaminata
	AAF40306.1	Vigna radiata	Oryza longistaminata
	CAA68193.1	Spinacia oleracea	Oryza sativa
	AAD20980.1	Zea mays	Nicotiana tabacum
	BAA95704.1	Oryza sativa	Ipomoea nil
	BAA95705.1	Oryza sativa	Oryza longistaminata
SEQ ID NO. 13	SEQ ID NO. 48		
BAA03763.1	CAA61510.1		Oryza sativa
AAF75791.1	AAF59906.1		Glycine max
AAF40306.1	AAF91322.1		Glycine max
CAA68193.1	AAF91324.1		Glycine max
AAD20980.1	AAF91323.1		Glycine max
BAA95704.1	AAF59905.1		Glycine max
BAA95705.1	AAC36318.1		Malus x domestica
	CAC20842.1		Pinus sylvestris
	AAB36558.1		Ipomoea nil
	BAA83373.1		Oryza sativa
	BAA84787.1		Oryza sativa
	AAF34426.1		Oryza sativa
	AAC49123.1		Oryza sativa
	AAF75791.1		Oryza longistaminata
	AAF40306.1		Oryza longistaminata
	CAA68193.1		Oryza sativa
	AAD20980.1		Nicotiana tabacum
	BAA95704.1		Ipomoea nil
	BAA95705.1		Oryza longistaminata
SEQ ID NO. 17	SEQ ID NO. 49		
BAA13181.1	AAB82755.1	Oryza sativa	Oryza longistaminata

AAC49123.1	U37133	Oryza sativa	AAC23542.1	U20948	Ipomoea trifida
AAC80225.1	U72723	Oryza longistaminata	CAA73134.1	Y12531	Brassica oleracea
AAF34426.1	AF172282	Oryza sativa	CAA67145.1	X98520	Brassica oleracea
CAC20842.1	AJ250467	Pinus sylvestris	BAA23676.1	AB000970	Brassica rapa
BAA83373.1	AP000391	Oryza sativa	BAA92836.1	AB032473	Brassica oleracea
BAA84787.1	AP000559	Oryza sativa	CAB89179.1	AJ245479	Brassica napus subsp. nap
AAB82756.1	U72724	Oryza sativa	AAA33008.1	M97667	Brassica napus
AAF91323.1	AF244889	Glycine max	BAA92837.1	AB032474	Brassica oleracea
AAC36318.1	AF053127	Malus x domestica	CAB41879.1	Y18260	Brassica oleracea
AAF91324.1	AF244890	Glycine max	CAA79355.1	Z18921	Brassica oleracea
AAF91322.1	AF244888	Glycine max	BAA21132.1	D88193	Brassica oleracea
AAF59905.1	AF197946	Glycine max	BAA06285.1	D30049	Brassica rapa
AAF59906.1	AF197947	Glycine max	AAA62232.1	U00443	Brassica rapa
AAB36558.1	U77888	Ipomoea nil	CAA74662.1	Y14286	Brassica napus
CAA61510.1	X89226	Oryza sativa	CAB41878.1	Y18259	Brassica oleracea
AAB82753.1	U72726	Oryza longistaminata	AAA33000.1	M76647	Brassica oleracea
BAA88636.1	AB029327	Nicotiana tabacum	BAA07577.2	D38564	Brassica oleracea
AAG52992.1	U77888	Ipomoea nil	BAA07576.1	D38563	Brassica rapa
AAB61708.1	U93048	Daucus carota	BAB21001.1	AB054061	Brassica rapa
SEQ ID NO. 50			AAB93834.1	U82481	Zea mays
BAA22559.1	AB007503	Glycine max	AAD21872.1	AF078082	Phaseolus vulgaris
BAA24289.1	AB010148	Panax ginseng	AAD52097.1	AF088885	Nicotiana tabacum
BAA13084.1	D86410	Glycyrrhiza glabra	AAF34428.1	AF172282	Oryza sativa
BAA13083.1	D86409	Glycyrrhiza glabra	SEQ ID NO. 52		
AAB08578.1	U60057	Nicotiana tabacum	AAB61708.1	U93048	Daucus carota
AAD20626.1	AF124842	Capsicum annuum	BAA83373.1	AP000391	Oryza sativa
BAA82093.1	AB022599	Solanum tuberosum	BAA84787.1	AP000559	Oryza sativa
AAA87048.1	U46000	Nicotiana benthamiana	AAG52992.1	U77888	Ipomoea nil
AAG14896.1	AF302464	Artemisia annua	AAF91322.1	AF244888	Glycine max
BAA22558.1	AB007502	Zea mays	AAF91323.1	AF244889	Glycine max
BAA22557.1	AB007501	Oryza sativa	AAK21965.1	AY028699	Brassica napus
AAB02945.1	U59683	Nicotiana tabacum	AAF59906.1	AF197947	Glycine max
AAF20201.1	AF205791	Botryococcus braunii	CAA61510.1	X89226	Oryza sativa
AAF71269.1	AF249900	Citrus sinensis	AAB36558.1	U77888	Ipomoea nil
AAD56387.1	AF181557	Artemisia annua	AAF59905.1	AF197946	Glycine max
AAF63255.1	AF205790	Botryococcus braunii	AAG03090.1	AC073405	Oryza sativa
SEQ ID NO. 51			AAF34426.1	AF172282	Oryza sativa
CAA73133.1	Y12530	Brassica oleracea	AAA33915.1	I27821	Oryza sativa
CAA74661.1	Y14285	Brassica oleracea	AAD21872.1	AF078082	Phaseolus vulgaris
			AAG16628.1	AY007545	Brassica napus





AAC36318.1	AF053127	Malus x domestica	BAA21673.1	AB006033	Allium cepa
AAK21965.1	AY028699	Brassica napus	AAB41817.1	M58365	Medicago sativa
AAF91324.1	AF244890	Glycine max	AAA33479.1	M60526	Zea mays
AAF91323.1	AF244889	Glycine max	CAA73997.1	Y13646	Petunia x hybrida
CAA97692.1	Z73295	Catharanthus roseus	BAA19553.1	D64036	Oryza sativa
CAA61510.1	X89226	Oryza sativa	CAA66234.1	X97638	Antirrhinum majus
AAF91322.1	AF244888	Glycine max	AAD30506.1	AF129886	Vigna radiata
AAK11569.1	AF318493	Lycopersicon hirsutum	CAA41172.1	X58194	Oryza sativa
CAB51834.1	00069	Oryza sativa	AAD08721.1	AF038570	Dunaliella tertiolecta
AAF76307.1	AF220602	Lycopersicon pimpinellifolium	CAC15504.1	AJ297917	Lycopersicon esculentum
AAB47424.1	U59317	Lycopersicon pimpinellifolium	ARG01533.1	AF289466	Nicotiana tabacum
AAK11566.1	AF318490	Lycopersicon hirsutum	AG01532.1	AF289465	Nicotiana tabacum
AAB47423.1	U59315	Lycopersicon pimpinellifolium	CAC15503.1	AJ297916	Lycopersicon esculentum
AAC48914.1	U02271	Lycopersicon pimpinellifolium	CAA66236.1	X97640	Antirrhinum majus
AAF76306.1	AF220602	Lycopersicon pimpinellifolium	CAC17703.1	AJ278885	Chenopodium rubrum
AAF76313.1	AF220603	Lycopersicon esculentum	BAB18271.1	AB035141	Chlamydomonas reinhardtii
AAB47421.1	U59316	Lycopersicon esculentum	CAB37188.1	AJ224336	Medicago sativa
AG03090.1	AC073405	Lycopersicon esculentum	CAA47099.1	X66469	Medicago sativa
AAK33915.1	L27821	Oryza sativa	AAB41548.1	L07042	Medicago sativa
AAF76314.1	AF220603	Lycopersicon esculentum	SEQ ID NO. 60		
AAK11568.1	AF318492	Lycopersicon hirsutum	BAA94962.1	AB042103	Asparagus officinalis
AAB47422.1	U59318	Lycopersicon esculentum	AAF63027.1	AF244924	Spinacia oleracea
BAA06538.1	D31737	Nicotiana tabacum	BAA92500.1	AP001383	Oryza sativa
AAK11567.1	AF318491	Lycopersicon hirsutum	AAF63026.1	AF244923	Spinacia oleracea
AAF34426.1	AF172282	Oryza sativa	AAF63025.1	AF244922	Spinacia oleracea
AAG25966.1	AF302082	Nicotiana tabacum	CRA62615.1	X91232	Mercurialis annua
SEQ ID NO. 59			BAA92422.1	AF001366	Oryza sativa
CAA96385.1	Z71703	Beta vulgaris	BAA92497.1	AP001383	Oryza sativa
BAA33152.1	AB008187	Pisum sativum	AAD43561.1	AF155124	Gossypium hirsutum
CAA66233.1	X97637	Antirrhinum majus	BAA82306.1	AB027752	Nicotiana tabacum
AAA92823.1	U18365	Brassica napus	CAA66037.1	X97351	Populus balsamifera subsp.
CAA76701.1	Y17226	Lycopersicon esculentum	trichocarpa		
AAG01534.1	AF289467	Nicotiana tabacum	AAD37430.1	AF149280	Phaseolus vulgaris
AAC41680.1	L34206	Petroselinum crispum	CAB65334.1	AJ250121	Picea abies
CAA61581.1	X89400	Vigna unguiculata	BAA77389.1	AB024439	Scutellaria baicalensis
CAA50038.1	X70707	Medicago sativa	BAA06334.1	D30652	Populus kitakamiensis
CAA71242.1	Y10160	Chenopodium rubrum	CAA71492.1	Y10466	Spinacia oleracea
AAA34241.1	M99497	Vigna aconitifolia	CAA66034.1	X97348	Populus balsamifera subsp.
CAA76700.1	Y17225	Lycopersicon esculentum	trichocarpa		
CAA99991.1	Z75661	Sesbania rostrata	BAA06335.1	D30653	Populus kitakamiensis

CAB94692.1	AJ242742	Ipomoea batatas	CAB56742.1	AJ249800	Cicer arietinum
CAA62226.1	X90693	Medicago sativa	AAG09208.1	AF175278	Pisum sativum
BAA14143.1	D90115	Armoracia rusticana	AAC49188.2	U29333	Pisum sativum
AAB02554.1	L37790	Stylosanthes humilis	AAA32913.1	M32885	Persea americana
CAA66036.1	X97350	Populus balsamifera subsp.	AAD56282.1	AF155332	Petunia x hybrida
trichocarpa			AAC39454.1	AF014802	Eschscholzia californica
BAA11852.1	D83224	Populus nigra	BAA92894.1	AB006790	Petunia x hybrida
BAA11853.1	D83225	Populus nigra	BAA12159.1	D83968	Glycine max
BAA07241.1	D38051	Populus kitakamiensis	CAA65580.1	X96784	Nicotiana tabacum
AAC05277.1	AF049881	Linum usitatissimum	AAB94587.1	AF022458	Glycine max
CAA66035.1	X97349	Populus balsamifera subsp.	BAA22423.1	AB001380	Glycyrrhiza echinata
trichocarpa			BAA74466.1	AB022733	Glycyrrhiza echinata
AAD37427.1	AF149277	Phaseolus vulgaris	AAG44132.1	AF218296	Pisum sativum
AAB06183.1	M37636	Arachis hypogaea	BAA13076.1	D86351	Glycine max
AAA34108.1	J02979	Nicotiana tabacum	BAA84072.1	AB028152	Torenia hybrida
CAA62227.1	X90694	Medicago sativa	AAD38930.1	AF135485	Glycine max
BAA01992.1	D11396	Nicotiana tabacum	CAA64635.1	X95342	Nicotiana tabacum
BAA92967.1	AP001551	Oryza sativa	CAB56743.1	AJ249801	Cicer arietinum
CAA40796.1	X57564	Armoracia rusticana	BAB40324.1	AB037245	Asparagus officinalis
AAC98519.1	AF007211	Glycine max			
CAA71493.1	Y10467	Spinacia oleracea	SEQ ID NO. 62		
CAA62225.1	X90692	Medicago sativa	CAA12395.1	AJ225087	Vigna unguiculata
CAA50597.1	X71593	Lycopersicon esculentum	CAA36556.1	X52321	Hordeum vulgare
CAB67121.1	Y19023	Lycopersicon esculentum	AAG25637.1	AF300799	Hordeum vulgare
AAC49819.1	AF014468	Oryza sativa	AAC67245.1	AF061203	Hordeum vulgare
BAA08499.1	D49551	Oryza sativa	AAG25638.1	AF300800	Hordeum vulgare
BAA01877.1	D11102	Populus kitakamiensis	BAB39391.1	AB048949	Hordeum vulgare
CAA59487.1	X85230	Triticum aestivum	AAK30294.1	AF353207	Castanea crenata
AAB97734.1	AF014502	Glycine max	BAA04815.1	D21349	Hordeum vulgare
BAA77388.1	AB024438	Scutellaria baicalensis	BAA08741.1	D49999	Hordeum vulgare
			AAC67246.1	AF061204	Hordeum vulgare subsp.
SEQ ID NO. 61			spontaneum		
CAB43505.1	AJ239051	Cicer arietinum	CAC16789.1	AJ301645	Hordeum vulgare
BAA93634.1	AB025016	Lotus japonicus	AAD04259.1	AF049098	Trifolium repens
BAA74465.1	AB022732	Glycyrrhiza echinata	BAA02286.1	D12882	Ipomoea batatas
BAA22422.1	AB001379	Glycyrrhiza echinata	AAD04188.1	AF026217	Medicago sativa
CAA10067.1	AJ012591	Cicer arietinum	BAA09462.1	D50866	Glycine max
CAB41490.1	AJ238439	Cicer arietinum	BAA20453.1	AB004271	Glycine max
CAA04117.1	AJ000478	Helianthus tuberosus	AAG44882.1	AF284857	Calystegia sepium
CAA04116.1	AJ000477	Helianthus tuberosus	CAA67128.1	X98504	Triticum aestivum
AAB94590.1	AF022461	Glycine max	AAA33898.1	L10345	Oryza sativa

AAA33899.1	L10346	Oryza sativa	AAF43408.1	AF230515	Oryza sativa subsp. japonica
BAA00828.1	D01022	Ipomoea batatas	AAK21965.1	AY028699	Brassica napus
AAD15902.1	AF068119	Zea mays	AAB93834.1	U82481	Zea mays
CAA81091.1	Z25871	Zea mays	CAA73134.1	Y12531	Brassica oleracea
CAA76131.1	Y16242	Triticum aestivum	AAB61708.1	U93048	Daucus carota
CAA77817.1	Z11772	Secale cereale	AAC23542.1	U20948	Ipomoea trifida
BAA92921.1	AP001539	Oryza sativa	AAD21872.1	AF078082	Phaseolus vulgaris
AAD38148.1	AF139501	Prunus armeniaca	CAB41878.1	Y18259	Brassica oleracea
AAB64177.1	AF012345	Hordeum vulgare	BAA21132.1	D88193	Brassica rapa
BAA09793.1	D63574	Hordeum vulgare	BAA06285.1	D30049	Brassica rapa
CAA40105.1	X56785	Secale cereale	CAA79355.1	Z18921	Brassica oleracea
SEQ ID NO. 63			AAF76313.1	AF220603	Lycopersicon esculentum
BAB19864.1	AB052885	Oryza sativa	AAB47421.1	U59316	Lycopersicon esculentum
CAA47324.1	X66856	Nicotiana tabacum	CAB51834.1	00069	Oryza sativa
CAA04511.1	AJ001061	Vitis vinifera	BAA94529.2	AP001800	Oryza sativa
AAB06594.1	U38651	Medicago truncatula	CAB41879.1	Y18260	Brassica oleracea
CAA70777.1	Y09590	Vitis vinifera	BAA94516.1	AP001800	Oryza sativa
BAB19863.1	AB052884	Oryza sativa	AAK33008.1	M97667	Brassica napus
CAB52689.1	AJ132224	Lycopersicon esculentum	CAB89179.1	AJ245479	Brassica napus subsp. napus
CAA09419.1	AJ010942	Lycopersicon esculentum	BAA23676.1	AB000970	Brassica rapa
CAB06079.1	Z83829	Picea abies	BAA78764.1	AB023482	Oryza sativa
BAB19862.1	AB052883	Oryza sativa	AAG03090.1	AC073405	Oryza sativa
CAA39036.1	X55349	Chlorella kessleri	AAF21775.1	AF068135	Glycine max
CAA68813.1	Y07520	Chlorella kessleri	CAA74662.1	Y14286	Brassica oleracea
CAA53192.1	X75440	Chlorella kessleri	BAA92837.1	AB032474	Brassica oleracea
CAB52688.1	AJ132223	Chlorella kessleri	CAA67145.1	X98520	Brassica oleracea
AAD55054.1	AF173655	Lycopersicon esculentum	CAA73133.1	Y12530	Brassica oleracea
CAB52690.1	AJ132225	Beta vulgaris	BAA07577.2	D38564	Brassica rapa
AAF74567.1	AF215853	Lycopersicon esculentum	AAG16628.1	AY007545	Brassica napus
AAF74566.1	AF215852	Solanum tuberosum	BAA07576.1	D38563	Brassica rapa
AAF74565.1	AF215851	Nicotiana tabacum	BAA92954.1	AP001551	Oryza sativa
AAF74568.1	AF215854	Spinacia oleracea	AAF66615.1	AF142596	Nicotiana tabacum
AAG43998.1	AF215837	Zea mays	BAA94509.1	AB041503	Populus nigra
SEQ ID NO. 64		Apium graveolens var. dulce	SEQ ID NO. 66		
AAF13299.1	AF181496	Lycopersicon esculentum	CAA58774.1	X83922	Brassica napus
AAB38743.1	U80583	Lycopersicon esculentum	CAA58773.1	X83921	Brassica napus
SEQ ID NO. 65			AAK14790.1	AY027510	Catharanthus roseus
BAB82556.1	AB030083	Populus nigra	CAA52896.1	X74942	Lycopersicon esculentum
			AAC49556.1	U04295	Oryza sativa
			AAA34293.1	M28704	Triticum aestivum

SEQ ID NO.	67	68	70
CAA52895.1	X74941	Lycopersicon esculentum	
AAD42938.1	AF084972	Catharanthus roseus	
CAA71768.1	Y10809	Petroselinum crispum	
AAA80169.1	U10270	Zea mays	
CAA71770.1	Y10810	Petroselinum crispum	
AAB40291.1	U42208	Oryza sativa	
CAA58772.1	X83920	Brassica napus	
CAA88492.1	Z48602	Nicotiana tabacum	
CAB62402.1	Y15165	Zea mays	
BAA10928.1	D64051	Triticum aestivum	
AAC49398.1	U46217	Petroselinum crispum	
CAA76555.1	Y16953	Sinapis alba	
AAD42937.1	AF084971	Catharanthus roseus	
CAA88493.1	Z48603	Nicotiana tabacum	
CAA63073.1	X92102	Raphanus sativus	
AAA17488.1	U07933	Triticum aestivum	
CAA52897.1	X74943	Lycopersicon esculentum	
AAB00098.1	L01449	Glycine max	
AAA68429.1	M63999	Triticum aestivum	
AAA19103.1	U10466	Triticum aestivum	
AAA19104.1	U10467	Triticum aestivum	
AAC49558.1	U04297	Oryza sativa	
SEQ ID NO.	67		
CAA10608.1	AJ132228	Ricinus communis	
CAA70778.1	Y09591	Vicia faba	
CAA07563.1	AJ007574	Ricinus communis	
AAD16014.1	AF080543	Nepenthes alata	
CAA70969.1	Y09826	Solanum tuberosum	
AAD16015.1	AF080544	Nepenthes alata	
CAA70968.1	Y09825	Solanum tuberosum	
CAA92992.1	Z68759	Ricinus communis	
AAD16013.1	AF080542	Nepenthes alata	
AAF15945.1	AF061435	Vicia faba	
CAA72006.1	Y11121	Ricinus communis	
AAF15944.1	AF061434	Vicia faba	
AAF15946.1	AF061436	Vicia faba	
AAB96830.1	U64823	Nicotiana sylvestris	
AAB48944.1	U31932	Nicotiana sylvestris	
BAA93437.1	AB022783	Oryza sativa	
CAB42599.1	AJ238635	Chlorella protothecoides	
SEQ ID NO.	70		
CAA73067.1	Y12464	Sorghum bicolor	
CAA73068.1	Y12465	Sorghum bicolor	
SEQ ID NO.	68		
AAG08959.1	AF122051	Solanum tuberosum	
AAG08960.1	AF122052	Solanum tuberosum	
AAG08961.1	AF122053	Solanum tuberosum	
AAF67052.1	AF190303	Adiantum raddianum	
AAF67053.1	AF190304	Adiantum raddianum	
AAF34434.1	AF172282	Oryza sativa	
AAF67051.1	AF190302	Secale cereale	
AAF67050.1	AF190301	Secale cereale	
CAA72217.1	Y11414	Oryza sativa	
BAA81731.1	AB029160	Glycine max	
BAA81730.1	AB029159	Glycine max	
CAA66952.1	X98308	Lycopersicon esculentum	
AAD31395.1	AF114162	Lolium temulentum	
BAA23341.1	D88621	Oryza sativa	
CAB40189.1	AJ133638	Avena sativa	
CAA61021.1	X87690	Hordeum vulgare	
AAG22863.1	AY008692	Hordeum vulgare	
BAA96421.1	AB044084	Triticum aestivum	
CAA78388.1	Z13998	Petunia x hybrida	
BAA81732.1	AB029161	Glycine max	
BAA81733.2	AB029162	Glycine max	
CAA72218.1	Y11415	Oryza sativa	
BAA81736.1	AB029165	Glycine max	
CAA72185.1	Y11350	Oryza sativa	
AAG13574.1	AC037425	Oryza sativa	
CAA67000.1	X98355	Oryza sativa	
AAG28526.1	AF198499	Nicotiana tabacum	
BAA88222.1	AB028650	Nicotiana tabacum	
AAG28525.1	AF198498	Nicotiana tabacum	
CAA78387.1	Z13997	Petunia x hybrida	
AAB41101.1	U72762	Nicotiana tabacum	
BAA88223.1	AB028651	Nicotiana tabacum	
CAA67575.1	X99134	Lycopersicon esculentum	
CAB43399.1	AJ006292	Antirrhinum majus	
AAK19616.1	AF336283	Gossypium hirsutum	
SEQ ID NO.	70		
CAA73067.1	Y12464	Sorghum bicolor	
CAA73068.1	Y12465	Sorghum bicolor	



BAA83689.1	AB011968	Oryza sativa	CAA95859.1	Z71276	Mangifera indica
BAA83688.1	AB011967	Oryza sativa	CAA55865.1	X79278	Medicago sativa
AAF22219.1	AF141378	Zea mays	BAA02111.1	D12543	Pisum sativum
BAA34675.1	AB011670	Triticum aestivum	CAA89049.1	Z49190	Beta vulgaris
AAB62693.1	AF004947	Oryza sativa	CAA98179.1	Z73951	Lotus japonicus
BAA05649.1	D26602	Nicotiana tabacum	BAA02437.1	D13152	Oryza sativa
CAA71142.1	Y10036	Cucumis sativus	CAA98177.1	Z73949	Lotus japonicus
AAD23582.1	AF128443	Glycine max	BAA06701.1	D31905	Zea mays
CAA65244.1	X95997	Solanum tuberosum	AAB97114.1	U58853	Glycine max
CAA57898.1	X82548	Hordeum vulgare	BAA06702.1	D31906	Zea mays
AAC99329.1	AF062479	Oryza sativa	CAA67153.1	X98540	Fagus sylvatica
CAA07813.1	AJ007990	Hordeum vulgare	BAA02110.1	D12542	Pisum sativum
CAA46554.1	X65604	Hordeum vulgare	CAA41966.1	X59276	Oryza sativa
AAB05457.1	U55768	Oryza sativa	BAA02109.1	D12541	Pisum sativum
CAA46556.1	X65606	Hordeum vulgare	BAA84640.1	AB007911	Pisum sativum
AAB58348.1	U29095	Triticum aestivum	CAA98185.1	Z73957	Lotus japonicus
CAA06503.1	AJ005373	Cratostigma plantagineum	CAA98186.1	Z73958	Lotus japonicus
AAA96325.1	M94726	Triticum aestivum	CAA98182.1	Z73954	Lotus japonicus
CAA81443.1	Z26846	Mesembryanthemum crystallinum	AAD48018.1	AF165095	Gossypium hirsutum
AAD00239.1	U73938	Nicotiana tabacum	CAA98183.1	Z73955	Lotus japonicus
BAA13608.1	D88399	Oryza sativa	AAD48019.1	AF165096	Gossypium hirsutum
AAB68962.1	L38855	Glycine max	CAA54506.1	X77301	Glycine max
AAG60195.1	AC084763	Oryza sativa	CAA98178.1	Z73950	Lotus japonicus
BAA19573.1	AB002109	Oryza sativa	BAA02108.1	D12540	Pisum sativum
CAA89202.1	Z49233	Chlamydomonas eugametos	AAA34253.1	L08130	Volvox carteri
AAD00240.1	U73939	Nicotiana tabacum	CAA98165.1	Z73937	Lotus japonicus
AAF27340.1	AF186020	Vicia faba	AAA90955.1	U32185	Glycine max
AAC98509.1	AF100162	Chlamydomonas reinhardtii	AAA63902.1	U22433	Zea mays
SEQ ID NO. 73			SEQ ID NO. 75		
CAA90282.1	Z49990	Solanum tuberosum	CAA52069.1	X73849	Brassica napus
SEQ ID NO. 74			CAA52070.1	X73850	Brassica napus
AAK15703.1	AF327517	Oryza sativa	CAA61111.1	X87842	Brassica rapa
BAA02904.1	D13758	Oryza sativa	AAC49002.1	U17098	Carthamus tinctorius
BAA02113.1	D12545	Pisum sativum	AAA33020.1	M96569	Garcinia mangostana
BAA02114.1	D12546	Pisum sativum	AAB51523.1	U92876	Capsicum chinense
CAA98180.1	Z73952	Lotus japonicus	AAG35064.1	AF318288	Carthamus tinctorius
BAA02112.1	D12544	Pisum sativum	AAA33019.1	M96568	Garcinia mangostana
CAA98181.1	Z73953	Lotus japonicus	AAB51524.1	U92877	Iris germanica
CAA98184.1	Z73956	Lotus japonicus	AAG43859.1	AF213478	Elaeis guineensis
			AAD28187.1	AF110462	

CAC14164.1	AJ278479	Brassica juncea	BAA02112.1	D12544	Pisum sativum
AAD33870.1	AF141382	Elaeis oleifera	CAA98184.1	273956	Lotus japonicus
AAD33895.1	AF143095	Elaeis guineensis	AAK15703.1	AF327517	Oryza sativa
AAB51525.1	U92878	Garcinia mangostana	BAA02904.1	D13758	Oryza sativa
CAA54060.1	X76561	Cuphea lanceolata	BAA02111.1	D12543	Pisum sativum
AAB71729.1	U65642	Myristica fragrans	BAA02113.1	D12545	Pisum sativum
AAF02215.1	AF076535	Gossypium hirsutum	CAA98180.1	273952	Lotus japonicus
AAD01982.1	AF034266	Gossypium hirsutum	BAA02114.1	D12546	Pisum sativum
AAG43858.1	AF213477	Iris germanica	CAA98181.1	273953	Lotus japonicus
BAA83582.1	AF000399	Oryza sativa	CAA95859.1	271276	Mangifera indica
AAG43860.1	AF213479	Iris tectorum	CAA55865.1	X79278	Medicago sativa
AAG43857.1	AF213476	Iris germanica	CAA89049.1	249190	Beta vulgaris
AAC49783.1	U56103	Cuphea wrightii	CAA98179.1	273951	Lotus japonicus
AAG43861.1	AF213480	Iris tectorum	BAA02437.1	D13152	Oryza sativa
CAC19934.1	AJ131741	Cuphea lanceolata	BAA06701.1	D31905	Zea mays
CAB60830.1	AJ131740	Cuphea lanceolata	BAA06702.1	D31906	Zea mays
AAC49784.1	U56104	Cuphea wrightii	BAA02110.1	D12542	Pisum sativum
AAD42220.1	AF147879	Elaeis guineensis	CAA98177.1	273949	Lotus japonicus
AAC49151.1	U31813	Cinnamomum camphora	CAA41966.1	X59276	Oryza sativa
AAC49001.1	U17097	Umbellularia californica	AAB97114.1	U58853	Glycine max
CAA06001.1	AJ003221	Solanum tuberosum	CAA98185.1	273957	Lotus japonicus
SEQ ID NO. 76			CAA67153.1	X98540	Fagus sylvatica
CAA47870.1	X67601	Lycopersicon peruvianum	CAA98183.1	273955	Lotus japonicus
CAA87076.1	246952	Glycine max	CAA98182.1	273954	Lotus japonicus
CAA47868.1	X67599	Lycopersicon esculentum	CAA54506.1	X77301	Glycine max
CAA47869.1	X67600	Lycopersicon peruvianum	BAA02108.1	D12540	Pisum sativum
CAA09300.1	AJ010643	Pisum sativum	AAD48018.1	AF165095	Gossypium hirsutum
AAF74563.1	AF208544	Lycopersicon peruvianum	BAA02109.1	D12541	Pisum sativum
CAA09301.1	AJ010644	Pisum sativum	CAA98186.1	273958	Lotus japonicus
BAA83711.1	AB014484	Nicotiana tabacum	BAA84640.1	AB007911	Pisum sativum
CAA58117.1	X82943	Zea mays	AAD48019.1	AF165096	Gossypium hirsutum
AAF37579.1	AF235958	Medicago sativa	CAA98178.1	273950	Lotus japonicus
CAA87077.1	246953	Glycine max	AAA63901.1	U22432	Zea mays
CAA39034.1	X55347	Lycopersicon peruvianum	CAA98165.1	273937	Lotus japonicus
BAA83710.1	AB014483	Nicotiana tabacum	AAA34253.1	L08130	Volvox carteri
CAA87080.1	246956	Glycine max	AAA90955.1	U32185	Glycine max
CAA87079.1	246955	Glycine max	AAA63902.1	U22433	Zea mays
CAA87075.1	246951	Glycine max	SEQ ID NO. 80		
SEQ ID NO. 78			AAF98390.1	AF287143	Brassica napus
			BAA93039.1	AB033758	Citrus unshiu

BAA99009.1	AB027455	Petunia x hybrida	BAA05622.1	D26573	Daucus carota
AAF61647.1	AF190634	Nicotiana tabacum	BAA93465.1	AB028077	Physcomitrella patens
BAA36423.1	AB013598	Verbena x hybrida	AAD37699.1	AF145730	Oryza sativa
BAA36421.1	AB013596	Perilla frutescens	SEQ ID NO. 82		
BAA36422.1	AB013597	Perilla frutescens	BAB18104.1	AB042714	Chlamydomonas reinhardtii
AAA59054.1	I34847	Zea mays	BAB18105.1	AB042715	Chlamydomonas reinhardtii
AAF17077.1	AF199453	Sorghum bicolor	CAB82852.1	Z30329	Mesembryanthemum crystalli
AAB36653.1	U32644	Nicotiana tabacum	CAA50374.1	X71057	Nicotiana tabacum
AAB36652.1	U32643	Nicotiana tabacum	CAA82993.1	Z30332	Spinacia oleracea
AAK28303.1	AF346431	Nicotiana tabacum	AAA50304.1	M92989	Pisum sativum
AAK28304.1	AF346432	Nicotiana tabacum	BAB033409.1	AP002816	Oryza sativa
BAA83484.1	AB031274	Scutellaria baicalensis	AAD37166.1	AF132743	Oryza sativa
CAA59450.1	X95138	Lycopersicon esculentum	CAA82994.1	Z30333	Mesembryanthemum crystalli
BAA12737.1	D95186	Gentiana triflora	AAF19403.1	AF203481	Lycopersicon esculentum
CAB56231.1	Y18871	Dortheanthus bellidifloris	AAF19402.1	AF203480	Lycopersicon esculentum
AAD21086.1	AF127218	Forsythia x Intermedia	AAD23582.1	AF128443	Glycine max
AAB48444.1	U82367	Solanum tuberosum	BAA05649.1	D26602	Nicotiana tabacum
BAA19659.1	AB002818	Perilla frutescens	CAA71142.1	Y10036	Cucumis sativus
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	CAA65244.1	X95997	Solanum tuberosum
CAA31855.1	X13500	Zea mays	AAF05112.1	AF158091	Mesembryanthemum crystallinum
CAA54611.1	X77461	Manihot esculenta	BAA96628.1	AP002482	Oryza sativa
AAD04166.1	AF101972	Phaseolus lunatus	CAA57898.1	X82548	Hordeum vulgare
BAA89008.1	AB027454	Petunia x hybrida	AAF06970.1	AF162662	Kalanchoe fedtschenkoi
AAB86473.1	AF028237	Ipomoea purpurea	AAF06969.1	AF162661	Kalanchoe fedtschenkoi
BAA90787.1	AB038248	Ipomoea batatas	BAA96593.1	AP002481	Oryza sativa
SEQ ID NO. 81			CAA46556.1	X65606	Hordeum vulgare
AAG43283.1	AF139210	Oryza sativa	CAA07813.1	AJ007990	Hordeum vulgare
AAD37698.1	AF145729	Oryza sativa	CAA46554.1	X65604	Hordeum vulgare
AAF01765.1	AF184278	Glycine max	AAC99329.1	AF062479	Oryza sativa
BAA93463.1	AB028075	Physcomitrella patens	AAF66637.1	AF143505	Lycopersicon esculentum
CAA62608.1	X91212	Lycopersicon esculentum	SEQ ID NO. 83		
BAA93462.1	AB028074	Physcomitrella patens	AAB86473.1	AF028237	Ipomoea purpurea
AAA63768.2	AF339748	Helianthus annuus	AAF61647.1	AF190634	Nicotiana tabacum
BAA93467.1	AB028079	Physcomitrella patens	CAA54558.1	X77369	Solanum melongena
AAD38144.1	AF139497	Prunus armeniaca	BAA89008.1	AB027454	Petunia x hybrida
BAA21017.1	D26578	Daucus carota	BAA90787.1	AB038248	Ipomoea batatas
CAA06728.1	AJ005833	Craterostigma plantagineum	AAF17077.1	AF199453	Sorghum bicolor
CAA06717.1	AJ005820	Craterostigma plantagineum	CAA54612.1	X77462	Manihot esculenta
AAD37700.1	AF145731	Oryza sativa	BAA12737.1	D85186	Gentiana triflora
BAA93464.1	AB028076	Physcomitrella patens			



BAA83484.1	AB031274	Scutellaria baicalensis	AA80225.1	U72723	Oryza longistaminata
CAA54614.1	X77464	Manihot esculenta	AA82755.1	U72725	Oryza longistaminata
AAD21086.1	AF127218	Forsythia x intermedia	AAC78595.1	AF053997	Lycopersicon esculentum
BAA93039.1	AB033758	Citrus unshiu	AAC78592.1	AF053994	Lycopersicon esculentum
AAB36652.1	U32643	Nicotiana tabacum	CAA05276.1	AJ002236	Lycopersicon pimpinellifol
AAF98390.1	AF287143	Brassica napus	AAC78594.1	AF053996	Lycopersicon pimpinellifol
AAK28304.1	AF346432	Nicotiana tabacum			
CRA30760.1	X07937	Zea mays	SEQ ID NO. 85		
BAA89009.1	AB027455	Petunia x hybrida	BAA32827.1	AB012708	Daucus carota
AAD04166.1	AF101972	Phaseolus lunatus			
CRA31855.1	X13500	Zea mays	SEQ ID NO. 86		
AAK16410.1	AF320086	Zea mays	AA52992.1	U77888	Ipomoea nil
AAD51778.1	AF116858	Phaseolus vulgaris	AA59906.1	AF197947	Glycine max
CRA30761.1	X07940	Zea mays	AAC36318.1	AF053127	Malus x domestica
BAA19155.1	AB000623	Nicotiana tabacum	AAE91323.1	AF244889	Glycine max
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	AAE91324.1	AF244890	Glycine max
AAB36653.1	U32644	Nicotiana tabacum	AAB36558.1	U77888	Ipomoea nil
CAB56231.1	Y18871	Dortheanthus bellidiformis	BAA83373.1	AP000391	Oryza sativa
AAK28303.1	AF346431	Nicotiana tabacum	BAA84787.1	AP000559	Oryza sativa
CRA59450.1	X85138	Lycopersicon esculentum	AAE91322.1	AF244888	Glycine max
BAB41020.1	AB047093	Vitis vinifera	AAE59905.1	AF197946	Glycine max
BAB41022.1	AB047095	Vitis vinifera	AAB61708.1	U93048	Daucus carota
BAB41024.1	AB047097	Vitis vinifera	CAC20842.1	XJ250467	Pinus sylvestris
BAB41026.1	AB047099	Vitis vinifera	CAA61510.1	X89226	Oryza sativa
BAB41025.1	AB047098	Vitis vinifera	AAE52994.1	U77888	Ipomoea nil
AAE81682.1	AF000371	Vitis vinifera	AAF34426.1	AF172282	Oryza sativa
BAB41023.1	AB047096	Vitis vinifera	AAE66615.1	AF142596	Nicotiana tabacum
AAE81683.1	AF000372	Vitis vinifera	AAE82755.1	U72725	Oryza longistaminata
BAB41021.1	AB047094	Vitis vinifera	AAK21965.1	AY028699	Brassica napus
			AAE16628.1	AY007545	Brassica napus
			BAA94509.1	AB041503	Populus nigra
			BAA94510.1	AB041504	Populus nigra
			CAB51836.1	AJ243961	Oryza sativa
SEQ ID NO. 84			SEQ ID NO. 87		
AAC36318.1	AF053127	Malus x domestica	CAA06486.1	AJ005340	Linum usitatissimum
AAC78593.1	AF053995	Lycopersicon esculentum			
AAC78596.1	AF053998	Lycopersicon esculentum	SEQ ID NO. 88		
AAB36558.1	U77888	Ipomoea nil	CAC12822.1	AJ299252	Nicotiana tabacum
CAB55399.1	AL117264	Oryza sativa	AAC24587.1	AF071893	Prunus armeniaca
CAA61510.1	X89226	Oryza sativa	AAE63205.1	AF245119	Mesembryanthemum crystallinum
AAD50430.1	AF166121	Hordeum vulgare			
AAF34426.1	AF172282	Oryza sativa			
AAC78591.1	AF053993	Lycopersicon esculentum			
AAC49123.1	U37133	Oryza sativa			

[illegible]

AAF32411.1	AF230278	Triphysaria versicolor	AB337749.1	U30460	Cucumis sativus
AAF32409.1	AF230276	Triphysaria versicolor	AAC96077.1	AF049350	Nicotiana tabacum
AAF35901.1	AF230332	Zinnia elegans	CAA69105.1	Y07782	Oryza sativa
AAF35902.1	AF230333	Zinnia elegans	AAC96078.1	AF049351	Nicotiana tabacum
AAD47901.1	AF085330	Pinus taeda	AAG01875.1	AF291659	Striga asiatica
AAB40635.1	U64891	Pinus taeda	AAC96079.1	AF049352	Nicotiana tabacum
AAG32921.1	AF184233	Lycopersicon esculentum	SEQ ID NO. 92		
CAC19184.1	AJ291817	Cicer arietinum	AAA17732.1	L19074	Catharanthus roseus
AAG13982.1	AF297521	Prunus avium	AAB94586.1	AF022457	Glycine max
AAB40637.1	U64893	Pinus taeda	CAB9260.1	249263	Pisum sativum
AAB40634.1	U64890	Pinus taeda	CAB43505.1	AJ239051	Cicer arietinum
AAC33529.1	U93167	Prunus armeniaca	AAB94587.1	AF022458	Glycine max
AAF21101.1	AF159563	Fragaria x ananassa	AAB37231.1	U34744	Phalaenopsis sp. SM9108
BAB19676.1	AB029083	Prunus persica	BAA84071.1	AB028151	Antirrhinum majus
AAB40636.1	U64892	Pinus taeda	BAA22423.1	AB001380	Glycyrrhiza echinata
AAC96081.1	AF049354	Nicotiana tabacum	CAA83941.1	Z33875	Mentha x piperita
AAC33530.1	AF038815	Prunus armeniaca	AAG09208.1	AF175278	Pisum sativum
CAB43197.1	AJ239068	Lycopersicon esculentum	SEQ ID NO. 93		
AAC64201.1	AF096776	Lycopersicon esculentum	SEQ ID NO. 93		
AAB37746.1	U30382	Cucumis sativus	AAC33228.2	AF305070	Chlamydomonas reinhardtii
AAD13633.1	AF059489	Lycopersicon esculentum	BAA96166.1	AF002092	Oryza sativa
AAB81662.1	U85246	Oryza sativa	SEQ ID NO. 96		
AAD49956.1	AF167360	Rumex palustris	CAA59450.1	X85138	Lycopersicon esculentum
CAC19183.1	AJ291816	Cicer arietinum	AAB36653.1	U32644	Nicotiana tabacum
AAF62180.1	AF247162	Oryza sativa	AAK28303.1	AF346431	Nicotiana tabacum
AAC39512.1	AF043284	Gossypium hirsutum	AAB36652.1	U32643	Nicotiana tabacum
AAB38074.1	U30477	Oryza sativa	AAK28304.1	AF346432	Nicotiana tabacum
BAB32732.1	AB049406	Eustoma grandiflorum	CAB56231.1	Y18871	Dortheanthus bellidiformis
AAF17570.1	AF202119	Marsilea quadrifolia	BAA83484.1	AB031274	Scutellaria baicalensis
CAB46492.1	AJ243340	Lycopersicon esculentum	AAB48444.1	U82367	Solanum tuberosum
CAC06433.1	AJ276007	Festuca pratensis	AAB62270.1	AF006081	Solanum berthaultii
BAA88200.1	AF000837	Oryza sativa	AAF61647.1	AF190634	Nicotiana tabacum
AAD13632.1	AF059488	Lycopersicon esculentum	CAA54612.1	X77462	Manihot esculenta
AAF32410.1	AF230277	Triphysaria versicolor	BAB41021.1	AB047094	Vitis vinifera
AAC63088.1	U82123	Lycopersicon esculentum	BAB41019.1	AB047092	Vitis vinifera
AAF62182.1	AF247164	Oryza sativa	AAD04166.1	AF101972	Phaseolus lunatus
AAG01874.1	AF291658	Striga asiatica	BAB41023.1	AB047096	Vitis vinifera
AAF62181.1	AF247163	Oryza sativa	BAB41025.1	AB047098	Vitis vinifera
CAA06271.2	AJ004997	Lycopersicon esculentum	AAF98390.1	AF287143	Brassica napus
AAF17571.1	AF202120	Regnellidium diphyllum			
CAA04385.1	AJ000885	Brassica napus			

AAD21086.1	AF127218	Forsythia x intermedia	CAA65533.1	X96758	Zea mays
AAB81683.1	AF000372	Vitis vinifera	SEQ ID NO. 101		
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	BAA85215.1	AP000570	Oryza sativa
BAB41020.1	AB047093	Vitis vinifera	AAA80586.1	U19490	Chlamydomonas reinhardtii
BAB41026.1	AB047099	Vitis vinifera	AAA80216.1	U19484	Chlamydomonas reinhardtii
BAB41024.1	AB047097	Vitis vinifera			
BAB41022.1	AB047095	Vitis vinifera	SEQ ID NO. 102		
AAB81682.1	AF000371	Vitis vinifera	AAB07452.1	U65890	Brassica napus
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	APB63591.1	AF009413	Oryza sativa
AAF17077.1	AF199453	Sorghum bicolor	AAB59307.1	M87646	Spinacia oleracea
CAA54611.1	X77461	Manihot esculenta	AAF60293.1	AF233745	Lycopersicon esculentum
BAA89009.1	AB027455	Petunia x hybrida			
BAA93039.1	AB033758	Citrus unshiu	SEQ ID NO. 103		
CAA54609.1	X77459	Manihot esculenta	AAG25928.1	AF260919	Petunia x hybrida
BAA89008.1	AB027454	Petunia x hybrida	AAG25927.1	AF260918	Petunia x hybrida
BAA19659.1	AB002818	Perilla frutescens	AAC28907.1	U18349	Phaseolus vulgaris
CAA54614.1	X77464	Manihot esculenta	AAB00686.1	U18348	Phaseolus vulgaris
			CAB92300.1	AJ251719	Zea mays
SEQ ID NO. 99			AAD15818.1	AF061107	Zea mays
BAB20862.1	AB029512	Solanum tuberosum	AAC49219.1	U39860	Oryza sativa
AAC25636.1	AF044173	Solanum tuberosum	AAC49216.1	U39865	Oryza officinalis
BAA03542.1	D14722	Spinacia oleracea	AAC39455.1	AF020545	Petunia x hybrida
CAA47329.1	X66860	Spinacia oleracea	AAC49212.1	U39863	Oryza australiensis
BAB20863.1	AB029513	Solanum tuberosum	AAC49213.1	U39864	Oryza eichingeri
AAD23909.1	AF073697	Oryza sativa	AAD56411.1	AF185269	Tulipa gesneriana
BAA05965.1	D28777	Citrullus lanatus			
BAB20861.1	AB029511	Solanum tuberosum	SEQ ID NO. 104		
CAA59798.1	X85803	Zea mays	AAA33041.1	M33148	Citrullus lanatus
BAA93051.1	AB040503	Allium tuberosum	AAC41647.1	L31900	Cucumis sativus
AAD23907.1	AF073695	Oryza sativa	AAB99754.1	AF020270	Medicago sativa
AAC25635.1	AF044172	Solanum tuberosum	BAA12870.1	D85763	Oryza sativa
CAC12819.1	AJ299249	Nicotiana tabacum	CAB43995.1	AJ242713	Brassica napus
CAC09469.1	AL442113	Oryza sativa	CAB43994.1	AJ242712	Brassica napus
BAA07177.1	D37963	Spinacia oleracea	CAA63268.1	X92512	Brassica napus
CAA06819.1	AJ006024	Cicer arletinum	CAA55383.1	X78800	Eucalyptus gunnii
AAD23908.1	AF073696	Oryza sativa	AAD56659.1	AF180335	Glycine max
AAD23910.1	AF073698	Oryza sativa	AAF69802.1	AF195869	Vitis vinifera
AAF78529.1	AF195239	Pyrus pyrifolia	AAB99755.1	AF020271	Medicago sativa
			AAB99757.1	AF020273	Medicago sativa
SEQ ID NO. 100			AAC28106.1	AF079850	Pisum sativum
AAB39510.1	U53345	Camptotheca acuminata			

AAC24955.1	AF068686	Glycine max	AAA81889.1	U02494	Solanum tuberosum
CAA61621.1	X89451	Brassica napus	AAA81891.1	U02496	Solanum tuberosum
AAA84971.1	U40212	Chlamydomonas reinhardtii	AAA81892.1	U02497	Solanum tuberosum
CAB45387.1	AJ006974	Plastid Nicotiana tabacum	AAA81890.1	U02495	Solanum tuberosum
AAD10324.1	U42979	Chlamydomonas reinhardtii	BAA85201.1	AP000570	Oryza sativa
AAB39506.1	U40465	Chlamydomonas reinhardtii	BAA84626.1	AP000492	Oryza sativa
CAB61751.1	AJ275317	Cicer arietinum	AAA81893.1	U02498	Solanum tuberosum
AAC19244.1	AF068687	Glycine max	BAA84627.1	AP000492	Oryza sativa
AAC19136.1	AF068688	Glycine max	BAA85202.1	AP000570	Oryza sativa
AAC19137.1	AF068689	Glycine max	AAB02006.1	U57350	Nicotiana tabacum
AAF27629.1	AF217211	Medicago truncatula	SEQ ID NO. 111		
AAF35861.1	AF220497	Medicago truncatula	AAB17501.2	U43034	Zea mays
AAB38970.1	U80676	Botryococcus braunii	SEQ ID NO. 112		
AAA62697.1	M55684	Hordeum vulgare	CAA71881.1	Y10990	Nicotiana tabacum
BAA02971.1	D13817	Oryza sativa	SEQ ID NO. 113		
AAK26431.1	AF353203	Oryza sativa	CAA70700.1	Y09506	Nicotiana tabacum
AAG13573.1	AC037425	Oryza sativa	CAA77134.1	Y18349	Oryza sativa
AAA62696.1	M55685	Hordeum vulgare	CAA77133.1	Y18349	Oryza sativa
AAB64290.1	AF007581	Zea mays	SEQ ID NO. 114		
CAA71611.1	Y10602	Lycopersicon esculentum	AAF20949.1	AF207691	Daucus carota
CAA70100.1	Y08887	Lycopersicon esculentum	AAB04951.1	U36752	Chlamydomonas reinhardtii
AAB99756.1	AF020272	Medicago sativa	AAC60560.2	S63824	Pinus mugo
CAC12826.1	AJ299256	Nicotiana tabacum	AAF89208.1	AF279251	Vigna radiata
AAC121564.1	AF067859	Solanum tuberosum	BAA21089.1	D50085	Cucumis sativus
BAA90618.1	AP001129	Oryza sativa	BAA31693.1	AB007321	Marchantia paleacea
CAA70101.1	Y08888	Lycopersicon esculentum	AAB86734.1	AF027356	Pinus strobus
CAA71612.1	Y10603	Lycopersicon esculentum	AAF82471.1	AF243520	Lycopersicon esculentum
CAA77808.1	Z11754	Zea mays	AAF82475.1	AF243522	Lycopersicon esculentum
AAA87008.1	U22533	Flaveria trinervia	AAD20020.1	AF126871	Chloroplast Vigna radiata
SEQ ID NO. 105			AAF82474.1	AF243524	Lycopersicon esculentum
AAG33228.2	AF305070	Chlamydomonas reinhardtii	SEQ ID NO. 116		
BAA96166.1	AP002092	Oryza sativa	CAA73171.1	Y12599	Apium graveolens
SEQ ID NO. 106			AAK29454.1	AF352251	Lens culinaris
CAB85464.1	AJ277210	Avena sativa	CAA40362.1	X57077	Zea mays
SEQ ID NO. 107			BAA25203.1	D87064	Triticum aestivum
BAA09852.1	D63781	Glycine max	AAK29455.1	AF352252	Lens culinaris
CAA55293.1	X78547	Glycine max			
CAA55294.1	X78548	Glycine max			

AAK29450.1	AF352247	Pisum sativum	SEQ ID NO. 120	AAF2256.1	AF161711	Pimpinella brachycarpa
AAK29456.1	AF352253	Lens culinaris	CAA67600.1	X9210		Lycopersicon esculentum
BAA8671.1	AB029614	Nicotiana tabacum	CAA64614.1	X95296		Lycopersicon esculentum
AAK29453.1	AF352250	Lathyrus sativus	CAA78386.1	Z13996		Petunia x hybrida
AAK29452.1	AF352249	Lathyrus sativus	CAB43399.1	AJ006292		Antirrhinum majus
AAK29449.1	AF352246	Pisum sativum	CAA78387.1	Z13997		Petunia x hybrida
BAA25204.1	D87065	Triticum aestivum	BAA88221.1	AB028649		Nicotiana tabacum
AAK29451.1	AF352248	Pisum sativum	BAA88224.1	AB028652		Nicotiana tabacum
CAA12232.1	AJ224933	Lycopersicon esculentum	AAB41101.1	U72762		Nicotiana tabacum
AAB86857.1	AF031547	Fritillaria agrestis	BAA88223.1	AB028651		Nicotiana tabacum
AAC41651.1	L29456	Nicotiana tabacum	BAA88222.1	AB028650		Nicotiana tabacum
AAA50578.1	U03391	Lycopersicon esculentum	CAA68235.1	X99973		Hordeum vulgare
BAA87331.1	AB012694	Lilium longiflorum	CAA66952.1	X98308		Lycopersicon esculentum
AAD41007.1	AF107024	Triticum aestivum	SEQ ID NO. 121			
AAF27930.1	AF222804	Euphorbia esula	CAA78387.1	Z13997		Petunia x hybrida
CAA29123.1	X05636	Pisum sativum	BAA81736.1	AB029165		Glycine max
AAA34246.1	L07947	Volvox carteri	BAA81732.1	AB029161		Glycine max
CAA07233.1	AJ006767	Cicer arietinum	BAA81731.1	AB029160		Glycine max
AAA50303.1	L34578	Pisum sativum	BAA81730.1	AB029159		Glycine max
AAD41008.1	AF107026	Triticum aestivum	BAA88221.1	AB028649		Nicotiana tabacum
AAA74723.1	L07946	Volvox carteri	BAA88224.1	AB028652		Nicotiana tabacum
CAA42529.2	X59872	Triticum aestivum	CAA66952.1	X98308		Lycopersicon esculentum
AAD41005.1	AF107022	Triticum aestivum	BAA81733.2	AB029162		Glycine max
SEQ ID NO. 119			CAA72217.1	Y11414		Oryza sativa
CAA07568.1	AJ007580	Ribes nigrum	BAA88222.1	AB028650		Nicotiana tabacum
CAA67107.1	X98474	Solanum tuberosum	AAB41101.1	U72762		Nicotiana tabacum
BAA92520.1	AF001383	Oryza sativa	BAA88223.1	AB028651		Nicotiana tabacum
CAA72107.1	Y11220	Solanum tuberosum	CAA72185.1	Y11350		Oryza sativa
AAB71744.1	U75346	Chlamydomonas reinhardtii	AAG13574.1	AC037425		Oryza sativa
AAB71743.1	U75345	Chlamydomonas reinhardtii	AAK19616.1	AF336283		Gossypium hirsutum
BAA31583.1	AB016064	Zea mays	CAA78386.1	Z13996		Petunia x hybrida
BAA31582.1	AB016063	Glycine max	CAA72218.1	Y11415		Oryza sativa
BAA31584.1	AB016065	Oryza sativa	CAA68235.1	X99973		Hordeum vulgare
CAB61741.1	AJ275306	Cicer arietinum	AAA33500.1	M73028		Zea mays
CAA69726.1	Y08499	Betula pendula	CAA67600.1	X99210		Lycopersicon esculentum
CAC12820.1	AJ299250	Nicotiana tabacum	AAG36774.1	AF210616		Zea mays
BAA08105.1	D45075	Panicum miliaceum	AAF22256.1	AF161711		Pimpinella brachycarpa
BAA08104.1	D45074	Panicum miliaceum	CAA72187.1	Y11352		Oryza sativa
BAA08103.1	D45073	Panicum miliaceum				
CAC27140.1	AJ132535	Picea abies				

CAB43399.1	AJ006292	Antirrhinum majus	AAK19618.1	AF336285	Gossypium hirsutum
AAK19615.1	AF336282	Gossypium hirsutum	AAK19611.1	AF336278	Gossypium hirsutum
AAK19618.1	AF336285	Gossypium hirsutum	AAK19619.1	AF336286	Gossypium hirsutum
CAA72186.1	Y11351	Oryza sativa	AAK19615.1	AF336282	Gossypium hirsutum
CAA64614.1	X95296	Lycopersicon esculentum	CAA64614.1	X95296	Lycopersicon esculentum
CAA50221.1	X70876	Hordeum vulgare	BAA23338.1	D88618	Oryza sativa
BAA23338.1	D88618	Oryza sativa	BAA23337.1	D88617	Oryza sativa
AAK19619.1	AF336286	Gossypium hirsutum	CAA67575.1	X99134	Lycopersicon esculentum
AAK19611.1	AF336278	Gossypium hirsutum	CAA65525.1	X96749	Oryza sativa
BAA23337.1	D88617	Oryza sativa	CAA50221.1	X70876	Hordeum vulgare
CAA65525.1	X96749	Oryza sativa	AAF22256.1	AF161711	Pimpinella brachycarpa
AAK19617.1	AF336284	Gossypium hirsutum	AAK19617.1	AF336284	Gossypium hirsutum
CAA67575.1	X99134	Lycopersicon esculentum	CAA50222.1	X70877	Hordeum vulgare
CAA50224.1	X70879	Hordeum vulgare	CAA50224.1	X70879	Hordeum vulgare
SEQ ID NO. 122					
BAA88222.1	AB028650	Nicotiana tabacum	SEQ ID NO. 125		
BAA88221.1	AB028649	Nicotiana tabacum	BAA92155.1	AB007818	Citrus unshiu
BAA88224.1	AB028652	Nicotiana tabacum	AAB02879.1	M37152	Nicotiana tabacum
CAA78387.1	Z13997	Petunia x hybrida	BAB16425.1	AB041513	Nicotiana tabacum
CAA66952.1	X98308	Lycopersicon esculentum	SEQ ID NO. 126		
AAB41101.1	U72762	Nicotiana tabacum	CAA68993.1	Y07721	Petunia x hybrida
BAA88223.1	AB028651	Nicotiana tabacum	SEQ ID NO. 134		
BAA81733.2	AB029162	Glycine max	AAB26960.1	U63726	Glycine max
BAA81731.1	AB029160	Glycine max	SEQ ID NO. 135		
BAA81730.1	AB029159	Glycine max	CAA77403.1	Z00044	Plastid Nicotiana tabacum
BAA81736.1	AB029165	Glycine max	SEQ ID NO. 136		
CAA72217.1	Y11414	Oryza sativa	AAB36543.1	U77935	Phaseolus vulgaris
BAA81732.1	AB029161	Glycine max	SEQ ID NO. 137		
CAA72185.1	Y11350	Oryza sativa	AAC77928.1	AF084202	Medicago sativa
AAG13574.1	AC037425	Oryza sativa	BAA07208.1	D38011	Oryza sativa
CAA72218.1	Y11415	Oryza sativa	SEQ ID NO. 138		
CAA78386.1	Z13996	Petunia x hybrida	BAA77358.1	AB020023	Nicotiana tabacum
CAB43399.1	AJ006292	Antirrhinum majus	BAB16432.1	AB041520	Nicotiana tabacum
AAK19616.1	AF336283	Gossypium hirsutum	AAC49528.1	U56834	Petroselinum crispum
AAG36774.1	AF210616	Zea mays	AAD27591.1	AF121354	Petroselinum crispum
AA33500.1	M73028	Zea mays			
CAA68235.1	X99973	Hordeum vulgare			
CAA72187.1	Y11352	Oryza sativa			
CAA72186.1	Y11351	Oryza sativa			
CAA67600.1	X99210	Lycopersicon esculentum			





AAC19392.1	AF069314	Mesembryanthemum crystallinum	AAD49230.1	AF159385	Hordeum bulbosum
CAA05081.1	AJ001903	Triticum turgidum subsp. durum	AAD49232.1	AF159387	Lolium perenne
BAB20886.1	AB053294	Oryza sativa	AAD49233.1	AF159388	Phalaris coerulescens
AAC49357.1	U35830	Pisum sativum	AAD49234.1	AF159389	Phalaris coerulescens
CAA45098.1	X63537	Pisum sativum	BAA13524.1	D87984	Fagopyrum esculentum
CAA41415.1	X58527	Nicotiana tabacum	CAA41415.1	X58527	Nicotiana tabacum
BAA04864.1	D21836	Oryza sativa	AAD49231.1	AF159386	Secale cereale
AAB51522.1	U92541	Oryza sativa	CAA56850.1	X80887	Chlamydomonas reinhardtii
BAA05546.1	D26547	Oryza sativa	CAA55399.1	X78822	Chlamydomonas reinhardtii
AAC04671.1	AF018174	Brassica napus	AAB53695.1	U59380	Brassica napus
AAC32111.1	AF051206	Picea mariana	AAD56954.1	AF186240	Secale cereale
CAA94534.1	Z70677	Ricinus communis	CAA35827.1	X51463	Spinacia oleracea
BAA25681.1	AB010434	Brassica rapa	CAA35826.1	X51462	Spinacia oleracea
BAA13524.1	D87984	Fagopyrum esculentum	CAA45098.1	X63537	Pisum sativum
AAG35777.1	AF273844	Brassica oleracea var.	CAA33082.1	X14959	Spinacia oleracea
alboglabra			AAC49357.1	U35830	Pisum sativum
AAB53694.1	U59379	Brassica napus	AAC19392.1	AF069314	Mesembryanthemum crystallinum
CAA77847.1	Z11803	Nicotiana tabacum	CAA56851.1	X80888	Chlamydomonas reinhardtii
CAA56850.1	X80887	Chlamydomonas reinhardtii	CAA55398.1	X78821	Chlamydomonas reinhardtii
CAA55399.1	X78822	Chlamydomonas reinhardtii	CAA53900.1	X76269	Pisum sativum
CAA35827.1	X51463	Spinacia oleracea	AAC49358.1	U35831	Pisum sativum
CAA35826.1	X51462	Spinacia oleracea	AAC04671.1	AF018174	Brassica napus
AAD33596.1	AF133127	Hevea brasiliensis	CAA06736.1	AJ005841	Oryza sativa
AAB53695.1	U59380	Brassica napus	AAB52409.1	U76831	Brassica napus
			AAD45358.1	AF160870	Brassica napus
SEQ ID NO. 147			SEQ ID NO. 148		
AAD33596.1	AF133127	Hevea brasiliensis	AAC49358.1	U35831	Pisum sativum
CAA77847.1	Z11803	Nicotiana tabacum	CAA53900.1	X76269	Pisum sativum
BAB20886.1	AB053294	Oryza sativa	AAB52409.1	U76831	Brassica napus
AAF88067.1	AF286593	Triticum aestivum	AAD45358.1	AF160870	Brassica napus
CAA05081.1	AJ001903	Triticum turgidum subsp. durum			
CAA94534.1	Z70677	Ricinus communis	SEQ ID NO. 149		
AAC32111.1	AF051206	Picea mariana	CAB88032.1	AJ271093	Lycopersicon esculentum
BAA25681.1	AB010434	Brassica rapa	AAF67141.1	AF230371	Lycopersicon esculentum
AAG35777.1	AF273844	Brassica oleracea var.	AAA03353.1	U00428	Linum usitatissimum
alboglabra			CAB86383.1	AJ250864	Hordeum vulgare
AAB53694.1	U59379	Brassica napus	CAB86384.1	AJ251304	Hordeum vulgare
BAB39913.1	AF002912	Oryza sativa	AAF64041.1	AF229811	Cucumis sativus
BAA05546.1	D26547	Oryza sativa	CAB54848.1	AJ249246	Medicago sativa
AAB51522.1	U92541	Oryza sativa	CAB54847.1	AJ249245	Medicago sativa
BAA04864.1	D21836	Oryza sativa			

CAB54849.1	AJ249247	Medicago sativa	AAG01533.1	AF289466	Nicotiana tabacum
AAA97465.1	U51674	Capsicum annuum	CAA65980.1	X97315	Medicago sativa
AAK27266.1	AY028374	Capsicum annuum	CAC15503.1	AJ297916	Lycopersicon esculentum
AAK15070.1	AF239670	Esidium guajava	CAA66235.1	X97639	Antirrhinum majus
AAK27265.1	AY028373	Lycopersicon esculentum	CAC17703.1	AJ278885	Chenopodium rubrum
AAF67142.1	AF230372	Lycopersicon esculentum	AAD08721.1	AF038570	Dunaliella tertiolecta
CAB43022.1	AJ239065	Lycopersicon esculentum	CAA65982.1	X97317	Medicago sativa
SEQ ID NO. 150			CAC15504.1	AJ297917	Lycopersicon esculentum
AAA74900.1	L34343	Ruta graveolens	CAA66236.1	X97640	Antirrhinum majus
AAA74901.1	L34344	Ruta graveolens	BAA19553.1	D64036	Oryza sativa
AAC27795.1	AF079168	Nicotiana tabacum	AAA33479.1	M60526	Zea mays
BAA82095.1	AB022603	Oryza sativa	CAA42922.1	X60374	Oryza sativa
BAA82094.1	AB022602	Oryza sativa	CAA54746.1	X77680	Picea abies
CAC29060.1	AJ250008	Catharanthus roseus	AAD10483.1	U23409	Triticum aestivum
SEQ ID NO. 151			AAA92823.1	U18365	Brassica napus
AAA92823.1	U18365	Brassica napus	CAA71242.1	Y10160	Chenopodium rubrum
AAK16652.1	AF194820	Populus tremula x Populus tremuloides	CAA76700.1	Y17225	Lycopersicon esculentum
CAA76700.1	Y17225	Lycopersicon esculentum	CAA56815.2	X80845	Pinus contorta
AAC41680.1	L34206	Petroselinum crispum	AAK16652.1	AF194820	Populus tremula x Populus tremuloides
CAA76701.1	Y17226	Lycopersicon esculentum	AG01534.1	AF289467	Nicotiana tabacum
AAA34241.1	M99497	Vigna aconitifolia	CAA66233.1	X97637	Antirrhinum majus
CAA99991.1	Z75661	Sesbania rostrata	CAA76701.1	Y17226	Lycopersicon esculentum
CAA61581.1	X89400	Vigna unguiculata	AAA34241.1	M99497	Vigna aconitifolia
AAK33479.1	M60526	Zea mays	CAA61581.1	X89400	Vigna unguiculata
AAD30506.1	AF129886	Vigna radiata	CAA42923.1	X60375	Oryza sativa
AAD30494.1	AF126737	Phaseolus vulgaris	BAA33152.1	AB008187	Pisum sativum
CAC15503.1	AJ297916	Lycopersicon esculentum	AAB02567.1	L77082	Nicotiana tabacum
AAD08721.1	AF038570	Dunaliella tertiolecta	CAA99991.1	Z75661	Sesbania rostrata
CAC15504.1	AJ297917	Lycopersicon esculentum	AAC41680.1	L34206	Petroselinum crispum
BAA19553.1	D64036	Oryza sativa	CAA50038.1	X70707	Medicago sativa
CAA37207.1	X53035	Pisum sativum	BAA21673.1	AB006033	Allium cepa
CAA41172.1	X58194	Oryza sativa	CAA73997.1	Y13646	Petunia x hybrida
AAA98856.1	U53510	Solanum tuberosum	AAB02568.1	L77083	Nicotiana tabacum
BAB18271.1	AB035141	Chlamydomonas reinhardtii	AAD10484.1	U23410	Triticum aestivum
CAA96384.1	Z71702	Beta vulgaris	AAB41817.1	M58365	Medicago sativa
SEQ ID NO. 152			AAD30506.1	AF129886	Vigna radiata
AAG01532.1	AF289465	Nicotiana tabacum	AAD30494.1	AF126737	Phaseolus vulgaris
			CAA66234.1	X97638	Antirrhinum majus
			CAA41172.1	X58194	Oryza sativa
			BAA28778.1	AB015182	Mesembryanthemum crystallinum

CAA65979.1	X97314	Medicago sativa	AAD00708.1	U91857	Stylosanthes hamata
CAA65981.1	X97316	Medicago sativa	AAC49741.1	U89257	Lycopersicon esculentum
AAG40580.1	AF216316	Oryza sativa	AAC29516.1	U77655	Solanum tuberosum
CAB61889.1	AJ251330	Oryza sativa	AAF05606.1	AF190770	Oryza sativa
BAB18271.1	AB035141	Chlamydomonas reinhardtii	BAA76734.1	AB024575	Nicotiana tabacum
SEQ ID NO. 154					
AAC50047.1	U89255	Lycopersicon esculentum	AAD45623.1	AF084185	Brassica napus
BAA97122.1	AB016264	Nicotiana sylvestris	AAG59619.1	AF243384	Oryza sativa
BAA07321.1	D38123	Nicotiana tabacum	SEQ ID NO. 156		
AAC62619.1	AF057373	Nicotiana tabacum	CAA58775.1	X83923	Solanum tuberosum
BAA87068.1	AB035270	Matricaria chamomilla	CAA04994.1	AJ001772	Nicotiana tabacum
CAB96899.1	AJ251249	Catharanthus roseus	CAB52708.1	AJ010712	Solanum tuberosum
CAB96900.1	AJ251250	Catharanthus roseus	CAA67782.1	X99405	Nicotiana tabacum
AAB38748.1	U81157	Nicotiana tabacum	CAA03941.1	AJ000184	Spinacia oleracea
AAC49740.1	U89256	Lycopersicon esculentum	AAB69317.1	AF012861	Petroselinum crispum
BAA97124.1	AB016266	Nicotiana sylvestris	CAB52685.1	AJ132346	Dunaliella bioculata
BAA97123.1	AB016265	Nicotiana sylvestris	CAA03939.1	AJ000182	Spinacia oleracea
AAD00708.1	U91857	Stylosanthes hamata	AAF87216.1	AF231351	Nicotiana tabacum
BAB03248.1	AB037183	Oryza sativa	CAA03940.1	AJ000183	Spinacia oleracea
AAF05606.1	AF190770	Oryza sativa	AAB41552.1	U18238	Medicago sativa subsp. sativa
BAA76734.1	AB024575	Nicotiana tabacum	BAA97662.1	AB029454	Triticum aestivum
AAC49741.1	U89257	Lycopersicon esculentum	AAD11426.1	AF097663	Mesembryanthemum crystallinum
AAC29516.1	U77655	Solanum tuberosum	CAA52442.1	X74421	Solanum tuberosum
AAD45623.1	AF084185	Brassica napus	AAB69318.1	AF012862	Petroselinum crispum
AAG59618.1	AF239616	Hordeum vulgare	BAA97663.1	AB029455	Triticum aestivum
AAK01089.1	AF298231	Hordeum vulgare	AAB69319.1	AF012863	Petroselinum crispum
SEQ ID NO. 155					
BAA97124.1	AB016266	Nicotiana sylvestris	BAA97664.1	AB029456	Triticum aestivum
BAA87068.1	AB035270	Matricaria chamomilla	CAA04993.1	AJ001770	Nicotiana tabacum
AAC50047.1	U89255	Lycopersicon esculentum	CAA04992.1	AJ001769	Nicotiana tabacum
BAA97122.1	AB016264	Nicotiana sylvestris	AAG23802.1	AF260736	Cucurbita pepo
BAA07321.1	D38123	Nicotiana tabacum	CAB66330.1	AJ279688	Betula pendula
AAC49740.1	U89256	Lycopersicon esculentum	BAA82155.1	AB011441	Triticum aestivum
AAC62619.1	AF057373	Nicotiana tabacum	CAA06200.1	AJ004900	Glycine max
AAB38748.1	U81157	Nicotiana tabacum	SEQ ID NO. 157		
CAB96900.1	AJ251250	Catharanthus roseus	CAA70768.1	Y09579	Pisum sativum
CAB96899.1	AJ251249	Catharanthus roseus	CAB94801.1	AJ289774	Pisum sativum
BAA97123.1	AB016265	Nicotiana sylvestris	CAB89693.1	AJ276591	Pisum sativum
BAB03248.1	AB037183	Oryza sativa	AAC98912.1	AF029984	Lycopersicon esculentum
			CAB89694.1	AJ276592	Pisum sativum
			CAB94800.1	AJ289773	Pisum sativum

BAA94422.1	AB040053	Oryza sativa subsp. japonica	AC084763	Oryza sativa
AAG31173.1	AF315714	Ipomoea nil	AB002109	Oryza sativa
SEQ ID NO. 159			U73939	Nicotiana tabacum
AAC39355.1	AF007807	Daucus carota	I38855	Glycine max
CAA05207.1	AJ002140	Lycopersicon esculentum	D88399	Oryza sativa
BAA92852.1	AB030726	Nicotiana tabacum	Z26846	Mesembryanthemum crystalli
AAC49931.1	AF034419	Pisum sativum	AJ005373	Craterostigma plantagineum
AAC15406.1	AF229183	Zea mays	AF186020	Vicia faba
AAC39356.1	AF007808	Daucus carota	U29095	Triticum aestivum
AAK11516.1	AF243043	Zea mays	AF100162	Chlamydomonas reinhardtii
SEQ ID NO. 161			M94726	Triticum aestivum
CAB89693.1	AJ276591	Pisum sativum	SEQ ID NO. 163	Ricinus communis
CAB94801.1	AJ289774	Pisum sativum	CAA94534.1	Nicotiana tabacum
CAB94800.1	AJ289773	Pisum sativum	CAA77847.1	Nicotiana tabacum
CAB89694.1	AJ276592	Pisum sativum	CAA41415.1	Oryza sativa
SEQ ID NO. 162			BAA05546.1	Oryza sativa
AAD23582.1	AF128443	Glycine max	AAB51522.1	Oryza sativa
CAA65244.1	X95997	Solanum tuberosum	BAA04864.1	Oryza sativa
CAA46556.1	X65606	Hordeum vulgare	BAB20886.1	Oryza sativa
AAF66639.1	AF143743	Lycopersicon esculentum	BAA13524.1	Fagopyrum esculentum
BAA05649.1	D26602	Nicotiana tabacum	AAB53695.1	Brassica napus
AAB52224.1	U83797	Solanum tuberosum	AAC32111.1	Picea mariana
AAC99329.1	AF062479	Oryza sativa	AAF88067.1	Triticum aestivum
CAA07813.1	AJ007990	Hordeum vulgare	CAA05081.1	Triticum turgidum subsp. durum
CAA46554.1	X65604	Hordeum vulgare	AAB53694.1	Brassica napus
AAB05457.1	U55768	Oryza sativa	AAG35777.1	Brassica oleracea var.
CAA57898.1	X82548	Hordeum vulgare	AB010434	Brassica rapa
CAA71142.1	Y10036	Cucumis sativus	AAD49232.1	Lolium perenne
CAA65243.1	X95996	Solanum tuberosum	AAD49231.1	Secale cereale
BAA96628.1	AP002482	Oryza sativa	AAD49234.1	Phalaris coerulescens
CAA73068.1	Y12465	Sorghum bicolor	AAD49233.1	Phalaris coerulescens
CAA73067.1	Y12464	Sorghum bicolor	AAD49230.1	Hordeum bulbosum
BAA83689.1	AB011968	Oryza sativa	AAD56954.1	Secale cereale
AF141378		Zea mays	BAB39913.1	Oryza sativa
BAA83688.1	AB011967	Oryza sativa	CAA55399.1	Chlamydomonas reinhardtii
BAA34675.1	AB011670	Triticum aestivum	CAA56850.1	Chlamydomonas reinhardtii
AAB62693.1	AF004947	Oryza sativa	AAD33596.1	Hevea brasiliensis
AAD00239.1	U73938	Nicotiana tabacum	AAC19392.1	Mesembryanthemum crystallinum
			CAA45098.1	Pisum sativum

AAC49357.1	U35830	Pisum sativum	AAD56954.1	AF186240	Secale cereale
CAA35827.1	X51463	Spinacia oleracea	AAD33596.1	AF133127	Hevea brasiliensis
CAA35826.1	X51462	Spinacia oleracea	AAC49358.1	U35831	Pisum sativum
CAA53900.1	X76269	Pisum sativum	CAA53900.1	X76269	Pisum sativum
CAA55398.1	X78821	Chlamydomonas reinhardtii	CAA35826.1	X51462	Spinacia oleracea
CAA56851.1	X80888	Chlamydomonas reinhardtii	CAA35827.1	X51463	Spinacia oleracea
CAA44209.1	X62335	Chlamydomonas reinhardtii	CAA45098.1	X63537	Pisum sativum
AAC49358.1	U35831	Pisum sativum	AAC49357.1	U35830	Pisum sativum
AAC04671.1	AF018174	Brassica napus	AAD45358.1	AF160870	Brassica napus
CAA33082.1	X14959	Spinacia oleracea	AAB52409.1	U76831	Brassica napus
CAA06736.1	AJ005841	Oryza sativa	AAC19392.1	AF069314	Mesembryanthemum crystallinum
AAD45358.1	AF160870	Brassica napus	CAA06736.1	AJ005841	Oryza sativa
AAB52409.1	U76831	Brassica napus	AAC04671.1	AF018174	Brassica napus
CAA06735.1	AJ005840	Triticum aestivum	CAA56851.1	X80888	Chlamydomonas reinhardtii
AAB47556.1	U87141	Mesembryanthemum crystallinum	CAA44209.1	X62335	Chlamydomonas reinhardtii
			CAA55398.1	X78821	Chlamydomonas reinhardtii
			CAA06735.1	AJ005840	Triticum aestivum
			AAB47556.1	U87141	Mesembryanthemum crystallinum
			CAA33082.1	X14959	Spinacia oleracea
SEQ ID NO. 164			SEQ ID NO. 165		
AAB53695.1	U59380	Brassica napus	AAF78756.1	AF271358	Oryza sativa
BAA04864.1	D21836	Oryza sativa			
BAA05546.1	D26547	Oryza sativa	SEQ ID NO. 166		
AAB51522.1	U92541	Oryza sativa	AAG14456.1	AF283708	Tulipa gesneriana
BAA25681.1	AB010434	Brassica rapa	AAG14455.1	AF283707	Tulipa gesneriana
AAB53694.1	U59379	Brassica napus	AAG14454.1	AF283706	Tulipa gesneriana
AAG35777.1	AF273844	Brassica oleracea var.	SEQ ID NO. 167		
alboglabra			AAC49832.1	AF005492	Oryza sativa
CAA94534.1	Z70677	Ricinus communis	BAA97100.1	AB040471	Nicotiana tabacum
CAA41415.1	X58527	Nicotiana tabacum	AAC04862.1	AF046934	Paulownia kawakamii
CAA77847.1	Z11803	Nicotiana tabacum	CAA05898.1	AJ003142	Lycopersicon esculentum
BAB20886.1	AB053294	Oryza sativa	CAA52015.1	X73635	Lycopersicon esculentum
AAF88067.1	AF286593	Triticum aestivum	BAA96162.1	AP002092	Oryza sativa
BAA13524.1	D87984	Fagopyrum esculentum	BAA07289.1	D38111	Triticum aestivum
CAA05081.1	AJ001903	Triticum turgidum subsp. durum	CAA40101.1	X56781	Triticum aestivum
AAC32111.1	AF051206	Picea mariana	CAA71687.1	Y10685	Glycine max
CAA55399.1	X78822	Chlamydomonas reinhardtii	AAB36514.1	U57389	Phaseolus vulgaris
CAA56850.1	X80887	Chlamydomonas reinhardtii	CAA41453.1	X58577	Petroselinum crispum
AAD49231.1	AF159386	Secale cereale	CAC00656.1	AJ292743	Petroselinum crispum
AAD49232.1	AF159387	Lolium perenne			
AAD49233.1	AF159388	Phalaris coerulescens			
AAD49230.1	AF159385	Hordeum bulbosum			
AAD49234.1	AF159389	Phalaris coerulescens			
BAB39913.1	AP002912	Oryza sativa			

U42208	AAAB40291.1	Oryza sativa	AF012889	Zea mays
AAK14790.1	AY027510	Catharanthus roseus	AF035944	Fragaria x ananassa
Y10809	CAA71768.1	Petroselinum crispum	AB008187	Pisum sativum
L34551	AAC37418.1	Oryza sativa	AF141378	Zea mays
X97904	CAA66478.1	Vicia faba	Z26846	Mesembryanthemum crystalli
U04295	AAC49556.1	Oryza sativa	AF072908	Nicotiana tabacum
Z48603	CAA88493.1	Nicotiana tabacum	AC073166	Oryza sativa
AF350505	AAK25822.1	Phaseolus vulgaris	M94726	Triticum aestivum
Y09013	CAA70216.1	Triticum aestivum	AY029067	Rosa hybrid cultivar
Y10834	CAA71795.1	Hordeum vulgare	U29095	Triticum aestivum
SEQ ID NO. 169				
AJ006228	CAA06925.1	Nicotiana tabacum	SEQ ID NO. 171	
SEQ ID NO. 170				
AB011968	BAA83689.1	Oryza sativa	CAC00658.1	Petroselinum crispum
AJ005077	CAA06334.1	Lycopersicon esculentum	AJ292744	Petroselinum crispum
AF158091	AAF05112.1	Mesembryanthemum crystallinum	Y13676	Antirrhinum majus
Z49233	CAA89202.1	Chlamydomonas eugametos	Y13675	Antirrhinum majus
AF216527	AAF21062.1	Dunaliella tertiolecta	D63951	Nicotiana tabacum
AF203480	AAF19402.1	Lycopersicon esculentum	AF176641	Lycopersicon esculentum
Y12465	CAA73068.1	Sorghum bicolor	AF350505	Phaseolus vulgaris
AF203481	AAF19403.1	Lycopersicon esculentum	AY026054	Phaseolus acutifolius
AF305911	AAG31141.1	Oryza sativa	Y10685	Glycine max
AF305912	AAG31142.1	Hordeum vulgare	I34551	Oryza sativa
AF162662	AAF06970.1	Kalanchoe fedtschenkoi	AB021736	Oryza sativa
AF162661	AAF06969.1	Kalanchoe fedtschenkoi	D78609	Oryza sativa
AF203479	AAF19401.1	Glycine max	X58577	Petroselinum crispum
AP001168	BAA90814.1	Oryza sativa	Y10809	Petroselinum crispum
Y12464	CAA73067.1	Sorghum bicolor	U04295	Oryza sativa
AB011670	BAA34675.1	Triticum aestivum	D38111	Triticum aestivum
U55768	AA805457.1	Oryza sativa	Y10834	Hordeum vulgare
AB011967	BAA83688.1	Oryza sativa	Y09013	Triticum aestivum
X56599	CAA39936.1	Daucus carota	X56781	Triticum aestivum
X58194	CAA41172.1	Oryza sativa	AJ223624	Spinacia oleracea
AP000615	BAA85396.1	Oryza sativa	U41817	Phaseolus vulgaris
AF048691	AAC05270.1	Oryza sativa	U42208	Oryza sativa
AF090835	AAD17800.1	Mesembryanthemum crystallinum	D12920	Triticum aestivum
X70707	CAA50038.1	Medicago sativa	SEQ ID NO. 180	
X81393	CAA57156.1	Oryza sativa	AF106954	Brassica napus
AP002482	BAA96628.1	Oryza sativa	AJ237693	Ajuga reptans
			AJ237694	Ajuga reptans
			AF178569	Vitis riparia

SEQ ID NO. 181	AAA80173.1	U11446	Pennisetum glaucum	AAK15502.1	AF325720	Pennisetum ciliare
AAA80172.1	U11445	Pennisetum glaucum		CAA57914.1	X82578	Parthenium argentatum
AAA33504.1	M26227	Zea mays		BAA77025.1	AB026251	Lithospermum erythrorhizon
AAA80171.1	U11444	Pennisetum glaucum		SEQ ID NO. 188		
AAG25927.1	AF260918	Petunia x hybrida		BAA04611.1	D17765	Oryza sativa
AAG25928.1	AF260919	Petunia x hybrida		SEQ ID NO. 189		
CAA40544.1	X57276	Zea mays		CAC12883.1	AJ295006	Nicotiana tabacum
AAA80175.1	U11450	Sorghum bicolor		CAA55090.1	X78284	Medicago sativa
AAC49216.1	U39865	Oryza officinalis		BAA92964.1	AP001551	Oryza sativa
AAB03841.1	U57899	Zea mays		AAB82139.1	AF022736	Oryza sativa
SEQ ID NO. 185				CAA64625.1	X95313	Chlamydomonas reinhardtii
CAA10134.1	AJ012693	Cicer arietinum		AAF78516.1	AF195217	Pyrus pyrifolia
CAB65280.1	AJ248323	Medicago sativa subsp. x varia		AAF43806.1	AF166114	Chloroplast Mesostigma virgulae
AAC32448.1	U76296	Spinacia oleracea		BAA58003.1	AB001684	Chlorella vulgaris
AAF66243.1	AF243181	Lycopersicon esculentum		AAC64970.1	AF095708	Oryza sativa
AAD10251.1	AF031195	Triticum aestivum		AAD54793.1	AF137379	Chloroplast Nephroselmis
AAF66242.1	AF243180	Lycopersicon esculentum		olivacea		
CAA80963.1	Z25471	Pisum sativum		SEQ ID NO. 190		
AAC64163.1	AF093537	Zea mays		CAB61752.1	AJ275318	Cicer arietinum
SEQ ID NO. 187				CAC14890.1	AJ295156	Phragmites australis
AAD32207.1	AF134733	Prunus armeniaca		AAB68605.1	U82433	Prunus armeniaca
AAB70919.1	AF019376	Brassica napus		AAA86532.1	U31544	Pisum sativum
AAB71420.1	U74631	Ricinus communis		SEQ ID NO. 191		
AAB71419.1	U74630	Ricinus communis		BAA02157.1	D12632	Oryza sativa
CAA95999.1	Z71395	Nicotiana plumbaginifolia		BAB19390.1	AF002542	Oryza sativa
CAA05161.1	AJ002057	Beta vulgaris		AAF64190.1	AF245665	Mesembryanthemum crystallinum
AAA32949.1	L27349	Hordeum vulgare		SEQ ID NO. 192		
AAF01470.1	AF190454	Zea mays		CAA12358.1	AJ225027	Cicer arietinum
CAA86728.1	Z46772	Zea mays		CAA63960.1	X94296	Hordeum vulgare
CAA61939.1	X89813	Zea mays		AAG13986.1	AF298827	Prunus avium
AAG01147.1	AF283816	Pinus taeda		SEQ ID NO. 193		
AAA32948.1	L27348	Hordeum vulgare		BAA94964.1	AB042113	Glycine max
BAA88900.1	AB021259	Oryza sativa		BAA94966.1	AB042115	Oryza sativa
AAD17490.1	AF052040	Berberis stolonifera		AAF67099.1	AF216853	Zea mays
CAA54975.1	X78057	Zea mays		BAA94965.1	AB042114	Glycine max
CAB54526.1	AJ000765	Chlamydomonas reinhardtii				
BAA85118.1	AB018243	Solanum melongena				







CAA41415.1	X58527	Nicotiana tabacum	SEQ ID NO. 227	Lycopersicon esculentum
AAB53695.1	U59380	Brassica napus	AAA34140.1	Nicotiana tabacum
BAB20886.1	AB053294	Oryza sativa	CAR45523.1	Lycopersicon esculentum
CAA05081.1	AJ001903	Triticum turgidum subsp. durum	AAA34186.1	Hordeum vulgare
AAF88067.1	AF286593	Triticum aestivum	AAF23819.1	Oryza sativa
BAA05546.1	D26547	Oryza sativa	AAC67558.1	Pinus sylvestris
BAA04864.1	D21836	Oryza sativa	CAA41404.1	Asarina barclaiana
AAB51522.1	U92541	Oryza sativa	AAF44702.1	Pinus sylvestris
BAA25681.1	AB010434	Brassica rapa	CAA41405.1	Chlamydomonas reinhardtii
CAA94534.1	Z70677	Ricinus communis	AAG28464.1	Oryza sativa
AAB53694.1	U59379	Brassica napus	AAC14566.1	Zea mays
AAG35777.1	AF273844	Brassica oleracea var.	CAA90681.1	Hordeum vulgare
alboglabra			AAF90200.1	Sinapis alba
CAA77847.1	Z11803	Nicotiana tabacum	CAA33903.1	Sinapis alba
AAD49231.1	AF159386	Secale cereale	CAA34459.1	Oryza sativa
AAD49233.1	AF159388	Phalaris coarulescens	AAC67557.1	Triticum aestivum
AAD49234.1	AF159389	Phalaris coarulescens	AAB18209.1	Zea mays
BAB39913.1	AP002912	Oryza sativa	AAA64414.1	Hordeum vulgare
AAD49230.1	AF159385	Hordeum bulbosum	CAA44777.1	Pinus sylvestris
AAD49232.1	AF159387	Lolium perenne	CAA41406.1	Chloroplast Gossypium hirsutum
AAD33596.1	AF133127	Hevea brasiliensis	AAA18529.1	Zea mays
CAA53399.1	X78822	Chlamydomonas reinhardtii	AAA64415.1	Pinus sylvestris
CAA56850.1	X80887	Chlamydomonas reinhardtii	CAA32658.1	Lycopersicon esculentum
AAD56954.1	AF186240	Secale cereale	CAA32197.1	Lycopersicon esculentum
CAA44209.1	X62335	Chlamydomonas reinhardtii	AAA34159.1	Pisum sativum
CAA56851.1	X80888	Chlamydomonas reinhardtii	AAF13731.1	Nicotiana tabacum
CAA55398.1	X78821	Chlamydomonas reinhardtii	CAA57877.1	Lycopersicon esculentum
AAC19392.1	AF069314	Mesembryanthemum crystallinum	AAA34142.1	Nicotiana sylvestris
AAC04671.1	AF018174	Brassica napus	BAA25392.1	Nicotiana plumbaginifolia
AAC49357.1	U35830	Pisum sativum	AAA34056.1	Pisum sativum
CAA45098.1	X63537	Pisum sativum	CAA57492.1	Nicotiana sylvestris
CAA35827.1	X51463	Spinacia oleracea	BAA25396.1	Phaseolus vulgaris
CAA35826.1	X51462	Spinacia oleracea	CAA28639.1	Vitis vinifera
CAA53900.1	X76269	Pisum sativum	AAA33711.1	Vigna unguiculata
AAC49358.1	U35831	Pisum sativum	AAA34141.1	
CAA33082.1	X14959	Spinacia oleracea		
AAD45358.1	AF160870	Brassica napus	SEQ ID NO. 228	
AAB52409.1	U76831	Brassica napus	CAA40474.1	
CAA06736.1	AJ005841	Oryza sativa	AAB65776.1	
CAA06735.1	AJ005840	Triticum aestivum	CAA61281.1	
AAB03681.1	U43609	Chlamydomonas reinhardtii		

AAB65777.1	U97522	Vitis vinifera	AAA17409.1	U02607	Solanum tuberosum
BAA22966.1	D45182	Chenopodium amaranticolor	AAA18332.1	U02605	Solanum tuberosum
BAA22968.1	D45184	Chenopodium amaranticolor	CAA45821.1	X64518	Nicotiana tabacum
BAA22965.1	D45181	Chenopodium amaranticolor	SEQ ID NO. 229		
CAA43708.1	X61488	Brassica napus	AAB35812.1	S80554	Arabidopsis
BAA22967.1	D45183	Chenopodium amaranticolor	AAF23570.1	AF112095	Arabidopsis halleri
CAA53544.1	X75945	Beta vulgaris	AAF23568.1	AF112093	Arabidopsis griffithiana
AAC49435.1	U52845	Daucus carota	AAG43351.1	AF144533	Arabidopsis korshinskyi
AAB08468.1	U52846	Daucus carota	AAF23581.1	AF112106	Capsella rubella
AAB08470.1	U52848	Daucus carota	AAF23569.1	AF112094	Halimolobos perplexa var.
AAB08469.1	U52847	Daucus carota	perplexa		
AAA33445.1	M84165	Zea mays	AAG43349.1	AF144531	Arabidopsis himalaica
AAA33444.1	M84164	Zea mays	AAF23575.1	AF112100	Arabidopsis lyrata subsp.
AAA32916.1	L25826	Beta vulgaris	lyrata		
AAD28733.1	AF112966	Triticum aestivum	AAF23567.1	AF112092	Arabidopsis griffithiana
BAB21377.1	AB054811	Oryza sativa	AAF23578.1	AF112103	Arabidopsis lyrata subsp.
BAB21374.1	AB054687	Oryza sativa	petraea		
BAA19793.1	AB003194	Oryza sativa	AAF23576.1	AF112101	Arabis parishii
AAA85364.1	L42467	Picea glauca	AAF23574.1	AF112099	Arabis lyallii
AAB01665.1	U21848	Brassica napus	AAF23566.1	AF112091	Arabis giabra
AAC35981.1	AF090336	Citrus sinensis	AAF23565.1	AF112090	Arabis fendleri
AAD28730.1	AF112963	Triticum aestivum	AAF23563.1	AF112088	Arabis drummondii
AAF04454.1	AF000966	Poa pratensis	AAF23564.1	AF112089	Arabis drummondii
CAC17793.1	AJ301671	Nicotiana sylvestris	AAF23579.1	AF112104	Arabidopsis lyrata subsp.
AAF04453.1	AF000964	Poa pratensis	petraea		
CAA34812.1	X16938	Nicotiana tabacum	AAF23573.1	AF112098	Arabis lignifera
CAA34813.1	X16939	Nicotiana tabacum	AAF23560.1	AF112085	Cardamine amara
CAA45822.1	X64519	Nicotiana tabacum	AAG43348.1	AF144530	Rorippa amphibia
CAA35945.1	X51599	Nicotiana tabacum	AAG43356.1	AF144538	Cardamine penzesii
AAB23374.1	S44869	Nicotiana tabacum	AAG43359.1	AF144541	Sisymbrium irio
AAA34070.1	M15173	Nicotiana tabacum	AAG43352.1	AF144534	Lepidium campestre
CAA30142.1	X07130	Solanum tuberosum	CAA32495.1	X14314	Sinapis alba
CAA33517.1	X15494	Solanum tuberosum	AAG43357.1	AF144539	Cardamine rivularis
AAG53609.1	ZF280437	Secale cereale	AAF23583.1	AF112108	Barbarea vulgaris
CAB01591.1	278202	Persea americana	AAC31914.1	AF076336	Brassica napus
CAA53626.1	X76041	Triticum aestivum	AAC31912.1	AF076334	Brassica napus
CAA78845.1	Z15140	Lycopersicon esculentum	AAF23577.1	AF112102	Arabis pauciflora
AAC16010.1	AF061805	Elaeagnus umbellata	AAG43350.1	AF144532	Cochlearia danica
AAA32640.1	M94106	Allium sativum	CAA34460.1	X16437	Sinapis alba
AAA32641.1	M94105	Allium sativum	CAA35600.1	X17577	Matthiola incana
AAA56787.1	L34211	Hordeum vulgare			

AAAG43358.1	AF144540	Cardamine pratensis	CAN79625.1	Z19573	Medicago sativa
AAAG43353.1	AF144535	Thlaspi arvense	AAF43140.1	AF217957	Populus tremuloides
AAAC31913.1	AF076335	Brassica napus	AAC35845.1	AF083332	Medicago sativa
AAAF23571.1	AF112096	Arabis hirsuta	CAC07423.1	AJ295837	Populus balsamifera subsp.
AAAF23582.1	AF112107	Arabis turrita	trichocarpa		
AAAG43406.1	AF174529	Aubrieta deltoidea	CNA79622.1	Z19568	Populus deltoides
AAAG43355.1	AF144537	Alliaria petiolata	AAC07987.1	AF038561	Eucalyptus globulus
AAAF23380.1	AF112105	Arabis procurrens	AAG15553.1	AF294793	Eucalyptus saligna
AAAF23357.1	AF112097	Arabis jacquinii	AAK00679.1	AF229407	Brassica napus
AAAF233562.1	AF112087	Arabis blepharophylla	CAA46585.1	X65631	Eucalyptus gunnii
AAAF233584.1	AF112109	Aubrieta deltoidea	CAA53211.1	X75480	Eucalyptus gunnii
AAAG43354.1	AF144536	Microthlaspi perfoliatum	AAK00681.1	AF229409	Brassica napus
AAAF233557.1	AF112082	Aethionema grandiflora	AAAB70908.1	AF010290	Lolium perenne
AAAF233558.1	AF112083	Arabis alpina	AAK00682.1	AF229410	Brassica oleracea
AAAF233559.1	AF112084	Arabis alpina	CAA74070.1	Y13733	Zea mays
AAAB87072.1	AF031922	Raphanus sativus	CAA06687.1	AJ005702	Zea mays
AAAG43360.1	AF144542	Ionopsidium abulense	AAK00678.1	AF229406	Brassica napus
AAAC31911.1	AF076333	Brassica napus	CAA13177.1	AJ231135	Saccharum officinarum
			AAK00684.1	AF229412	Brassica rapa
			AAK00680.1	AF229408	Brassica rapa
			AAK00683.1	AF229411	Brassica rapa
			BAA19487.1	D86590	Zinnia elegans
			BAA04046.1	D16624	Eucalyptus botryoides
			AAAD18000.1	AF109157	Eucalyptus globulus
			AAF23409.1	AF207552	Brassica napus
			AAF23412.1	AF207555	Brassica rapa
			AAF23411.1	AF207554	Brassica oleracea
			AAF23410.1	AF207553	Brassica napus
			AAF23416.1	AF207559	Brassica rapa
			AAF23415.1	AF207558	Brassica oleracea

CAA57893.1	X82543	Parthenium argentatum	CAA87075.1	Z46951	Glycine max
AAC49452.1	U36376	Artemisia annua	CAA87076.1	Z46952	Glycine max
AAD17204.1	AF112881	Artemisia annua	CAA47870.1	X67601	Lycopersicon peruvianum
BAA19856.1	D85317	Oryza sativa	AAF74563.1	AF208544	Lycopersicon peruvianum
BAA36276.1	AB021747	Oryza sativa	AAF37579.1	AF235958	Medicago sativa
AAD32648.1	AF136602	Artemisia annua	CAA87079.1	Z46955	Glycine max
BAA36347.1	AB021979	Oryza sativa	CAA09301.1	AJ010644	Pisum sativum
AAD37789.1	AF149257	Artemisia annua	CAA09300.1	AJ010643	Pisum sativum
AAD45122.1	AF164026	Xanthoceras sorbifolium			
AAB93951.1	U97330	Nicotiana tabacum	SEQ ID NO. 236		
AAB93984.1	AF005201	Parthenium argentatum	AAB72109.1	AF022217	Brassica rapa
			AAD49336.1	AF166277	Nicotiana tabacum
SEQ ID NO. 233			CAA37847.1	X53851	Daucus carota
CAB59893.1	AJ238697	Hordeum vulgare	CAA08908.1	AJ009880	Castanea sativa
BAA22194.1	D63425	Spinacia oleracea	CAB36910.1	AJ000691	Quercus suber
CAB59895.1	AJ238745	Hordeum vulgare	CAA41547.1	X58711	Medicago sativa
CAB96145.1	AJ250951	Mesembryanthemum crystallinum	AAC39360.1	U63631	Fragaria x ananassa
CAA42780.1	X60219	Nicotiana sylvestris	AAB03893.1	M11318	Glycine max
BAB16430.1	AB041518	Nicotiana tabacum	AAA33975.1	M11395	Glycine max
AAB94892.1	AF037051	Gossypium hirsutum	CAA25578.1	X01104	Glycine max
CAA75054.1	Y14762	Lycopersicon esculentum	CAA37848.1	X53852	Daucus carota
CAC78466.1	AF053311	Zantedeschia aethiopica	BAA33062.1	AB017273	Cuscuta japonica
CAA75009.1	Y14707	Helianthus annuus	CAB55634.2	AJ237596	Helianthus annuus
CAA74775.1	Y14429	Helianthus annuus	AAA61632.1	U08601	Papaver somniferum
CAA04142.1	AJ000508	Pisum sativum	AAA33672.1	M33899	Pisum sativum
CAB59894.1	AJ238744	Hordeum vulgare	AAB63311.1	U46545	Helianthus annuus
CAA75055.1	Y14763	Lycopersicon esculentum	CAB08441.1	Z95153	Helianthus annuus
BAA83594.1	AB009083	Chlamydomonas sp. W80	CAA42222.1	X59701	Helianthus annuus
AAB66330.1	AF014927	Chlamydomonas reinhardtii	AAB63310.1	U46544	Helianthus annuus
CAA09194.1	AJ010455	Triticum aestivum	AAD30454.1	AF123257	Lycopersicon esculentum
CAB66331.1	AJ279689	Betula pendula	AAD30452.1	AF123255	Lycopersicon esculentum
			AAC78392.1	U83669	Oryza sativa
SEQ ID NO. 234			CAA39603.1	X56138	Lycopersicon esculentum
BAA83710.1	AB014483	Nicotiana tabacum	BAA02160.1	D12635	Oryza sativa
CAA39034.1	X55347	Lycopersicon peruvianum	AAA33974.1	M11317	Glycine max
CAA87077.1	Z46953	Glycine max	CAA63903.1	X94193	Pennisetum glaucum
CAA87080.1	Z46956	Glycine max	AAD30453.1	AF123256	Lycopersicon esculentum
CAA47869.1	X67600	Lycopersicon peruvianum	AAC78394.1	U83671	Oryza sativa
CAA47868.1	X67599	Lycopersicon esculentum	AAA33910.1	M80939	Oryza sativa
BAA83711.1	AB014484	Nicotiana tabacum	AAC78393.1	U83670	Oryza sativa
CAA58117.1	X82943	Zea mays	CAA63570.1	X92983	Pseudotsuga menziesii

CAA43210.1	X60820	Oryza sativa	CAA63901.1	X94191	Pennisetum glaucum
AAA33909.1	M80938	Oryza sativa	AAA33672.1	M33899	Pisum sativum
CAA37864.1	X53870	Chenopodium rubrum	CAA41547.1	X58711	Medicago sativa
CAA63571.1	X92984	Pseudotsuga menziesii	CAA46641.1	X65725	Zea mays
CAA63901.1	X94191	Pennisetum glaucum	AAB39856.1	U81385	Oryza sativa
AAA33671.1	M33900	Pisum sativum	AAC78394.1	U83671	Oryza sativa
CAA46641.1	X65725	Zea mays	AAC78392.1	U83669	Oryza sativa
CAA31785.1	X13431	Triticum aestivum	CAA39603.1	X56138	Lycopersicon esculentum
CAA63902.1	X94192	Pennisetum glaucum	AAA33910.1	M80939	Oryza sativa
AAB339856.1	U81385	Oryza sativa	AAA33909.1	M80938	Oryza sativa
			CAA43210.1	X60820	Oryza sativa
			AAD30453.1	AF123256	Lycopersicon esculentum
			AAA34294.1	I14444	Triticum aestivum
			AAD30454.1	AF123257	Lycopersicon esculentum
SEQ ID NO. 237			SEQ ID NO. 238		
AAC14577.1	U72396	Lycopersicon esculentum	AAD30456.1	AF123259	Lycopersicon esculentum
AAA33670.1	M33901	Pisum sativum	AAF31705.1	AF221856	Euphorbia esula
CAA82653.1	Z29554	Helianthus annuus	AAC32131.1	AF051230	Picea mariana
AAD41409.1	AF159562	Prunus dulcis	CAA78738.1	Z15018	Oryza sativa
CAA65020.1	X95716	Petroselinum crispum			
AAC36312.1	AF090115	Lycopersicon esculentum	SEQ ID NO. 239		
AAB01561.1	L47717	Picea glauca	CAB57979.1	AJ011914	Lycopersicon esculentum
AAB39336.1	M99430	Ipomoea nil			
AAB01562.1	L47740	Picea glauca	SEQ ID NO. 240		
CAA67206.1	X98617	Medicago sativa	AAA33945.1	J03919	Glycine max
CAA41218.1	X58279	Triticum aestivum	CAA48297.1	X68215	Pisum sativum
CAA67726.1	X99346	Picea abies	AAA33944.1	J03920	Glycine max
CAA38012.1	X54075	Zea mays	CAA48298.1	X68216	Pisum sativum
CAA38013.1	X54076	Zea mays	CAA48300.1	X68218	Pisum sativum
AAB26481.1	S59777	Zea mays	CAA48299.1	X68217	Pisum sativum
AAB39335.1	M99429	Ipomoea nil	AAD50278.1	AF169830	Glycine max
AAD09184.1	AF089845	Funaria hygrometrica	CAB61882.1	AJ249996	Lycopersicon esculentum
BAA04841.1	D21817	Lilium longiflorum			
AAD09185.1	AF089846	Funaria hygrometrica	SEQ ID NO. 241		
BAA04842.1	D21818	Lilium longiflorum	AAA33944.1	J03920	Glycine max
CAA63570.1	X92983	Pseudotsuga menziesii	CAA48300.1	X68218	Pisum sativum
CAA63571.1	X92984	Pseudotsuga menziesii	CAA48299.1	X68217	Pisum sativum
AAC39360.1	U63631	Fragaria x ananassa	AAA33945.1	J03919	Glycine max
AAD09178.1	AF087640	Funaria hygrometrica	CAA48297.1	X68215	Pisum sativum
AAD09182.1	AF089843	Funaria hygrometrica	CAA48298.1	X68216	Pisum sativum
BAA04840.1	D21816	Lilium longiflorum			
AAD30452.1	AF123255	Lycopersicon esculentum			
AAB63311.1	U46545	Helianthus annuus			
CAA31785.1	X13431	Triticum aestivum			

AAD50278.1	AF169830	Glycine max	AAF65770.1	AF242312	Euphorbia esula
SEQ ID NO. 242			AAD22975.1	AF126551	Solanum tuberosum subsp.
AAD32142.1	AF123504	Nicotiana tabacum	tuberosum		
CAA48297.1	X68215	Pisum sativum	AAG03106.1	AC073405	Oryza sativa
CAA48298.1	X68216	Pisum sativum	CAA48638.1	X68678	Zea mays
AAD32143.1	AF123505	Nicotiana tabacum	SEQ ID NO. 262		
AAD32146.1	AF123508	Nicotiana tabacum	AAB65777.1	U97522	Vitis vinifera
AAA33945.1	J03919	Glycine max	AAB65776.1	U97521	Vitis vinifera
BAA85821.1	AB026822	Cucumis sativus	AAG53609.1	AF280437	Secale cereale
AAA33944.1	J03920	Glycine max	CAA53626.1	X76041	Triticum aestivum
CAA48300.1	X68218	Pisum sativum	BAA03750.1	D16222	Oryza sativa
CAA48299.1	X68217	Pisum sativum	CAB01591.1	Z78202	Persea americana
AAC13253.1	AF0222013	Lycopersicon esculentum	CAA30142.1	X07130	Solanum tuberosum
AAD50278.1	AF169830	Glycine max	BAA03751.1	D16223	Oryza sativa
BAA95840.1	AP002070	Oryza sativa	SEQ ID NO. 263		
SEQ ID NO. 244			AAD10836.1	U52079	Solanum tuberosum
AAC49376.1	U43840	Glycine max	BAA83352.1	AP000391	Oryza sativa
AAC49374.1	U43838	Glycine max	BAA90508.1	AP001111	Oryza sativa
CAC24490.1	AJ305033	Pisum sativum	BAA90507.1	AP001111	Oryza sativa
AAC49375.1	U43839	Glycine max	BAA94511.1	AB041505	Populus nigra
SEQ ID NO. 249			SEQ ID NO. 265		
CAA48630.1	X68664	Solanum tuberosum	AAC35496.1	AF052690	Raphanus sativus
AAG29840.1	AF307843	Chlamydomonas reinhardtii	AAC99310.1	AF052585	Malus x domestica
AAG29839.1	AF307842	Chlamydomonas reinhardtii	AAC99309.1	AF052584	Malus x domestica
SEQ ID NO. 251			AAG27547.1	AF269128	Brassica nigra
AAC08401.1	AF0533564	Mesembryanthemum crystallinum	AAC27696.1	AF016011	Brassica napus
AAG14454.1	AF283706	Tulipa gesneriana	AAC27694.1	AF016009	Brassica napus
AAG14455.1	AF283707	Tulipa gesneriana	AAC27695.1	AF016010	Brassica napus
AAG14456.1	AF283708	Tulipa gesneriana	AAG27546.1	AF269126	Brassica nigra
SEQ ID NO. 257			AAG24863.1	AF300700	Ipomoea nil
BAA02720.1	D13502	Glycine max	AAD22518.1	AF001136	Pinus radiata
SEQ ID NO. 259			BAA33205.1	AB001887	Oryza sativa
BAA84791.1	AP000559	Oryza sativa	BAA33201.1	AB001883	Oryza sativa
CAA10766.1	AJ132763	Pseudotsuga menziesii	BAA33203.1	AB001885	Oryza sativa
AAC05639.1	AF052206	Chlamydomonas reinhardtii	BAA33206.1	AB001888	Oryza sativa
			BAA33202.1	AB001884	Oryza sativa
			BAA33204.1	AB001886	Oryza sativa
			BAA33200.1	AB001882	Oryza sativa

SEQ ID NO. 268	CAA46990.1	X66284	Solanum tuberosum	BAB21589.1	AB036786	Oryza sativa
CAA56520.1	X80236	AAF06970.1	Solanum tuberosum	AF162662	AF162662	Kalanchoe fedtschenkoi
AAG42149.1	AF011123	AAF06969.1	Dactylis glomerata	AF162661	AF162661	Kalanchoe fedtschenkoi
AAK07827.1	AF297643	CAA41172.1	Cucumis melo	X59194	X59194	Oryza sativa
CAA56521.1	X80237	CAA65500.1	Solanum tuberosum	X96723	X96723	Medicago sativa
CAA56519.1	X80235	BAA12691.1	Solanum tuberosum	D84507	D84507	Zea mays
BAA04964.1	D25241	AB47181.1	Solanum tuberosum	S82324	S82324	Zea mays
		CAA07481.1	Oryza sativa	AJ007366	AJ007366	Zea mays
		AAF40430.1		AF234652	AF234652	Mesembryanthemum crystalli
SEQ ID NO. 274						
BAA92986.1	AP001550	SEQ ID NO. 276	Oryza sativa	AAK30202.1	AF349961	Daucus carota
AAF19807.1	AF180356	AAA53296.1	Brassica oleracea	L18908	L18908	Nicotiana tabacum
AAF19403.1	AF203481	CAA63112.1	Lycopersicon esculentum	X92367	X92367	Spinacia oleracea
AAF19402.1	AF203480	CAA63107.1	Lycopersicon esculentum	X92350	X92350	Spinacia oleracea
BAA05648.1	D26601	AB86852.1	Nicotiana tabacum	AF031542	AF031542	Fritillaria agrestis
AAF23901.2	AF194414	AAC24573.1	Oryza sativa	AF061508	AF061508	Zea mays
ARC04324.1	U73937	CAA62040.1	Nicotiana tabacum	X90414	X90414	Spinacia oleracea
AAF23900.1	AF194413		Oryza sativa			
BAA34675.1	AB011670	SEQ ID NO. 277	Triticum aestivum	BAA08104.1	D45074	Panicum miliaceum
BAA13440.1	D87707	BAA08103.1	Ipomoea batatas	D45073	D45073	Panicum miliaceum
AAD17800.1	AF090835	BAA08105.1	Mesembryanthemum crystallinum	D45075	D45075	Panicum miliaceum
CAA57157.1	X81394	CAA72107.1	Oryza sativa	Y11220	Y11220	Solanum tuberosum
AAD23582.1	AF128443	CAC12820.1	Glycine max	AJ299250	AJ299250	Nicotiana tabacum
CAA39936.1	X56599	AAB71744.1	Daucus carota	U75346	U75346	Chlamydomonas reinhardtii
BAA12715.1	D85039	AAB71743.1	Daucus carota	U75345	U75345	Chlamydomonas reinhardtii
CAA58750.1	X83869	CAA07568.1	Glycine max	AJ007580	AJ007580	Ribes nigrum
AA80693.1	U69174	CAA56325.1	Dunaliella tertiolecta	X80023	X80023	Triticum turgidum
AAF21062.1	AF216527	CAA46311.1	Solanum tuberosum	X65194	X65194	Chlamydomonas reinhardtii
AAD28192.2	AF115406	CAA67107.1	Nicotiana tabacum	X98474	X98474	Solanum tuberosum
BAA05649.1	D26602	CAC27140.1	Zea mays	AJ132535	AJ132535	Picea abies
AAA69507.1	U28376	CAA69726.1	Oryza sativa	Y08499	Y08499	Betula pendula
AB05457.1	U55768	BAA31583.1	Zea mays	AB016064	AB016064	Zea mays
ARG36872.1	AF239819	CAB61741.1	Chlamydomonas eugametos	AJ275306	AJ275306	Cicer arietinum
CAA89202.1	Z49233	BAA31584.1	Zea mays	AB016065	AB016065	Oryza sativa
CAA72362.1	Y11649	BAA92520.1	Zea mays	AP001383	AP001383	Oryza sativa
CAA72290.1	Y11526		Zea mays			
CAA43659.1	X61387	SEQ ID NO. 278	Solanum tuberosum	CAA64729.1	X95462	Brassica napus
CAA65244.1	X95997	CAA64729.1	Zea mays	X95462	X95462	Brassica napus
AAF76187.1	AF271237	AB20114.2	Oryza sativa	S60064	S60064	
BAB21591.1	AB036788					



CAA74177.1	Y13862	Nicotiana tabacum	SEQ ID NO. 292	AAF36996.1	AF236092	Brassica oleracea var. bot
CRA74176.1	Y13861	Nicotiana tabacum		AAF29973.1	AF188060	Adonis palaeostina
CAA05879.1	AJ003124	Petunia x hybrida		AAB67743.1	U48963	Clarkia breweri
CAA05816.1	AJ003025	Oryza sativa		BAB40973.1	AB049815	Nicotiana tabacum
AAF14562.1	AF181724	Brassica napus		AAF29974.1	AF188061	Adonis palaeostina
AAF14561.1	AF181723	Brassica napus		AAF29978.1	AF188065	Oryza sativa
AAF14563.1	AF181725	Brassica oleracea		BAB40974.1	AB049816	Nicotiana tabacum
BAA13547.1	D88156	Hyoscyamus niger		AAF29976.1	AF188063	Lactuca sativa
BAA85844.1	AB026544	Hyoscyamus niger		CAA57947.1	X82627	Clarkia breweri
AAA33281.1	L20473	Datura stramonium		AAF29977.1	AF188064	Tagetes erecta
CAC19810.1	AJ292343	Solanum tuberosum		AAB94132.1	AF031079	Camptotheca acuminata
CAB52307.1	AJ245634	Solanum tuberosum		AAB94133.1	AF031080	Camptotheca acuminata
AAB09776.1	L20485	Hyoscyamus niger		AAB67742.1	U48962	Clarkia xantiana
BAA85845.1	AB026545	Hyoscyamus niger		AAG10423.1	AF251011	Tagetes erecta
CAC34420.1	AJ307584	Solanum tuberosum		AAF29975.1	AF188062	Lactuca sativa
AAA33282.1	L20474	Datura stramonium		AAD41766.1	AF111843	Hevea brasiliensis
AAA33280.1	L20475	Datura stramonium		AAD41765.1	AF111842	Hevea brasiliensis
SEQ ID NO. 279				AAC32208.1	AF082325	Haematococcus pluvialis
BAA29041.1	AB015615	Oryza sativa		AAC32209.1	AF082326	Haematococcus pluvialis
AAB97167.1	AF300882	Zea mays		BAA33978.1	AB019034	Haematococcus pluvialis
AAA91298.1	U18908	Zea mays		CAA70850.1	Y09634	Nicotiana tabacum
AAD33889.1	AF142589	Hordeum vulgare		AAC32601.1	AF082869	Chlamydomonas reinhardtii
AAD33890.1	AF142590	Triticum aestivum		AAF91499.1	AF227951	Daucus carota
AAD33891.1	AF142591	Solanum tuberosum		SEQ ID NO. 293		
AAD53260.1	AF142588	Hordeum vulgare		AAC26828.1	AF075603	Oryza sativa
SEQ ID NO. 281				AAB93832.1	U81960	Zea mays
AAD17487.1	AF049347	Berberis stolonifera		AAC36698.1	AF075580	Mesembryanthemum crystallinum
AAB20352.1	S65550	Eschscholzia californica		AAD17804.1	AF092431	Lotus japonicus
AAC39358.1	AF005655	Eschscholzia californica		AAD17805.1	AF092432	Lotus japonicus
AAC61839.1	AF025430	Papaver somniferum		AAC36700.1	AF075582	Mesembryanthemum crystallinum
SEQ ID NO. 283				CAA72341.1	Y11607	Medicago sativa
CAA90427.1	Z50099	Solanum tuberosum		AAG43835.1	AF213455	Zea mays
CAA75777.1	Y15781	Capsicum annuum		CAC10359.1	AJ277087	Nicotiana tabacum
CAA86609.1	Z46648	Craterostigma plantagineum		CAC10358.1	AJ277086	Nicotiana tabacum
CAA86608.1	Z46647	Craterostigma plantagineum		AAC36697.1	AF075579	Mesembryanthemum crystallinum
CAA86607.1	Z46646	Craterostigma plantagineum		AAC36699.1	AF075581	Mesembryanthemum crystallinum
BAA76432.1	AB025004	Cicer arietinum		CAC09575.1	AJ298987	Fagus sylvatica
SEQ ID NO. 294				SEQ ID NO. 294		

CAA12646.1	AJ225806	Egeria densa	AAF13731.1	AF002248	Pisum sativum
AAC50046.1	U46758	Oryza sativa	AAC67557.1	AF094775	Oryza sativa
AAB97617.1	U83687	Apium graveolens	AAF90200.1	AF287276	Hordeum vulgare
AAB41555.1	U13924	Medicago sativa subsp. sativa	CAA33330.1	X15258	Lycopersicon esculentum
AAB41556.1	U13925	Medicago sativa subsp. sativa	CAA41407.1	X58517	Pinus sylvestris
BAA12084.1	D83718	Glycyrrhiza echinata	CAA45523.1	X64198	Nicotiana tabacum
BAA13114.1	D86559	Glycyrrhiza glabra	AAD27882.2	AF139470	Vigna radiata
BAA13113.1	D86558	Glycyrrhiza glabra	AAA34140.1	M17633	Lycopersicon esculentum
			AAA34143.1	M32605	Lycopersicon esculentum
			CAA49209.1	X69434	Pyrobotrys stellata
		Nicotiana tabacum	CAA50763.1	X71965	Pyrobotrys stellata
		Oryza sativa	AAF44703.1	AF241525	Alonsoa meridionalis
		Triticum aestivum	AAF23819.1	AF218305	Hordeum vulgare
		Triticum aestivum	AAA64416.1	U23190	Zea mays
		Triticum aestivum	AAC67558.1	AF094776	Oryza sativa
		Oryza sativa	AAA34186.1	J03558	Lycopersicon esculentum
		Oryza sativa	AAA34146.1	M32606	Lycopersicon esculentum
		Picea mariana	CAA41404.1	X58514	Pinus sylvestris
		Picea abies	CAA41405.1	X58515	Pinus sylvestris
		Picea mariana	CAA57408.1	X81809	Picea abies
		Glycine max	CAA57409.1	X81810	Picea abies
		Nicotiana tabacum	AAA33949.1	M21396	Glycine max
		Dendrobium grex Madame Thong-In	BAA25395.1	AB012640	Nicotiana sylvestris
		Oryza sativa	BAA25393.1	AB012638	Nicotiana sylvestris
		Nicotiana tabacum	CAA47950.1	X67714	Pinus contorta
		Oryza sativa	CAA44777.1	X63052	Hordeum vulgare
		Oryza sativa	AAC78690.1	S73603	Pinus thunbergii
		Nicotiana tabacum	AAA50172.1	U01964	Glycine max
		Oryza sativa	AAD27879.2	AF139467	Vigna radiata
		Oryza sativa	AAA34056.1	M21398	Nicotiana plumbaginifolia
		Nicotiana tabacum	CAA41187.1	X58229	Nicotiana tabacum
		Oryza sativa	AAA68425.1	M34396	Polystichum munitum
		Dendrobium grex Madame Thong-In			
			SEQ ID NO. 298		
			AAB70241.1	AF016845	Lycopersicon esculentum
		Petunia x hybrida	CAB52219.1	Y18519	Silene latifolia
		Lycopersicon esculentum	AAF97517.1	AF250047	Zea mays
		Lycopersicon esculentum	CAB52218.1	Y18517	Silene latifolia
		Pisum sativum	AAF97518.1	AF250048	Zea mays
		Pinus sylvestris	AAF27919.1	AF220203	Malus x domestica
		Nicotiana tabacum	AAF97519.1	AF250049	Zea mays
			SEQ ID NO. 296		
			AAA33711.1	M21317	Lycopersicon esculentum
			AAA34159.1	M20241	Silene latifolia
			CAA32197.1	X14036	Zea mays
			CAA57492.1	X81962	Silene latifolia
			CAA41406.1	X58516	Zea mays
			CAA57877.1	X82497	Malus x domestica

AAK19620.1	AF3336287	Gossypium hirsutum	AA29483.1	S68879	Brassica napus
BAA76895.1	AB022686	Lycopersicon esculentum	AA29484.1	S68727	Brassica napus
AAC18914.1	U94748	Petunia x hybrida			
BAA76896.1	AB022687	Lycopersicon esculentum			
SEQ ID NO. 299			SEQ ID NO. 310		
AAB70241.1	AF016845	Lycopersicon esculentum	AAC49184.1	U04042	Hevea brasiliensis
CAB52219.1	Y18519	Silene latifolia	CAA11219.1	AJ223281	Manihot esculenta
CAB52218.1	Y18517	Silene latifolia	CAA82334.1	Z29091	Manihot esculenta
AAF97517.1	AF250047	Zea mays			
AAF97518.1	AF250048	Zea mays			
AAK19620.1	AF3336287	Gossypium hirsutum			
AAF97519.1	AF250049	Zea mays			
AAC18914.1	U94748	Petunia x hybrida	SEQ ID NO. 313		
BAA76895.1	AB022686	Lycopersicon esculentum	AAA80575.1	U13148	Pennisetum ciliare
AAF37386.1	AF134835	Medicago truncatula	AAF34174.1	AF195243	Chlamydomonas reinhardtii
AAB63030.1	U83921	Daucus carota			
SEQ ID NO. 300			SEQ ID NO. 314		
AAF97517.1	AF250047	Zea mays	AAA34085.1	M93436	Nicotiana tabacum
CAB52219.1	Y18519	Silene latifolia	AAA34054.1	M96432	Nicotiana tabacum
CAB52218.1	Y18517	Silene latifolia	BAB41080.1	AB052729	Pisum sativum
AAF97518.1	AF250048	Zea mays			
AAF97519.1	AF250049	Zea mays			
AAB70241.1	AF016845	Lycopersicon esculentum	SEQ ID NO. 315		
BAA76895.1	AB022686	Lycopersicon esculentum	CAA67291.1	X98739	Pisum sativum
AAF27919.1	AF220203	Malus x domestica	CAA67290.1	X98738	Pisum sativum
BAA76896.1	AB022687	Lycopersicon esculentum	CAA10643.1	AJ132349	Antirrhinum majus
SEQ ID NO. 305					
AAB94599.1	AF024652	Glycine max	SEQ ID NO. 316		
AAB94598.1	AF024651	Glycine max	AAB97366.1	AF039531	Oryza sativa
SEQ ID NO. 308					
CAA54255.1	X76932	Spinacia oleracea			
CAA58020.1	X82776	Pisum sativum	SEQ ID NO. 318		
SEQ ID NO. 309			AAAF01467.1	AF190450	Avicennia marina
AAB29482.1	S68726	Brassica napus			
AAA66068.1	U14665	Brassica napus	SEQ ID NO. 319		
AAA52230.1	U16751	Brassica oleracea	AAC61839.1	AF025430	Papaver somniferum
			AAC39358.1	AF005655	Eschscholzia californica
			AAB20352.1	S65550	Eschscholzia californica
			AAD17487.1	AF049347	Berberis stolonifera

SEQ ID NO. 320	SEQ ID NO. 321	Parthenium argentatum
AAAG43998.1	CAA78387.1	Petunia x hybrida
AAAF74566.1	CAA66952.1	Lycopersicon esculentum
AAAF74565.1	BAA82222.1	Nicotiana tabacum
AAAF74568.1	BAA81731.1	Glycine max
AAAF74567.1	BAA81730.1	Glycine max
CAA68813.1	BAA41101.1	Nicotiana tabacum
CAA39036.1	BAA88224.1	Nicotiana tabacum
BAB19864.1	BAA88223.1	Nicotiana tabacum
CAB07812.1	BAA81732.1	Glycine max
CAA47324.1	BAA88221.1	Nicotiana tabacum
CAA53192.1	BAA81736.1	Glycine max
BAB19863.1	BAA81733.2	Glycine max
AAB06594.1	CAA72217.1	Oryza sativa
CAA04511.1	CAA72185.1	Oryza sativa
AAA79761.1	AAG13574.1	Oryza sativa
CAA09419.1	AAK19616.1	Gossypium hirsutum
CAA70777.1	CAA78386.1	Petunia x hybrida
CAB52689.1	CAB43399.1	Antirrhinum majus
BAB19862.1	CAA72218.1	Oryza sativa
CAB06079.1	CAA67600.1	Lycopersicon esculentum
BAA85398.1	CAA64614.1	Lycopersicon esculentum
AAD55054.1	AAG36774.1	Zea mays
CAB52688.1	AAA33500.1	Zea mays
AJ132223	AAK19618.1	Gossypium hirsutum
CAB52690.1	AAE22256.1	Pimpinella brachycarpa
AAAF74025.1	BAA23338.1	Oryza sativa
BAB21545.1	CAA67575.1	Lycopersicon esculentum
BAA20522.1	AAK19619.1	Gossypium hirsutum
CAA67395.1	CAA72186.1	Oryza sativa
AAD38859.1	CAA65525.1	Oryza sativa
AAB82146.1	AAK19611.1	Gossypium hirsutum
SEQ ID NO. 324	BAA23337.1	Oryza sativa
AAB71078.1	AAK19615.1	Gossypium hirsutum
BAA92988.1	CAA72187.1	Oryza sativa
AAA91168.1	CAA50221.1	Hordeum vulgare
AAB71079.1	CAA50224.1	Hordeum vulgare
U62752	CAA50222.1	Hordeum vulgare
X66411	AAK19617.1	Gossypium hirsutum
CAA47042.1		
AAD11446.1		
U62749		
X86553		
CAA60251.1		

CAA68235.1	X99973	Hordeum vulgare	BAA01855.1	D11082	Oryza sativa
SEQ ID NO. 334			BAA01584.1	D10752	Oryza sativa
AAD25355.1	AF115574	Pisum sativum	AAD28284.1	AF136268	Oryza sativa subsp. japoni
AAB18669.1	U11716	Pisum sativum	CAA72987.1	Y12320	Triticum aestivum
AAA33662.1	M18250	Pisum sativum	AAG27621.1	AF286317	Triticum aestivum
			AAA82735.1	U17897	Zea mays
SEQ ID NO. 337			BAA01854.1	D11081	Zea mays
CAA56319.1	X80009	Pisum sativum	AAC36471.1	AF072724	Zea mays
CAB40743.1	AJ011885	Solanum tuberosum	AAB61925.1	AF002820	Triticum aestivum
CAB40746.1	AJ011888	Solanum tuberosum	CAB40749.1	AJ011891	Solanum tuberosum
BAA82348.1	AB029548	Phaseolus vulgaris	CAB40745.1	AJ011887	Solanum tuberosum
CAB40748.1	AJ011890	Solanum tuberosum	CAB40744.1	AJ011886	Solanum tuberosum
AAD30186.1	AF076679	Triticum aestivum	BAA85762.1	AB028067	Nicotiana tabacum
BAA01616.1	D10838	Oryza sativa	BAB40335.1	AB042940	Ipomoea batatas
AAB67316.1	U65948	Zea mays	CAA49371.1	X69713	Manihot esculenta
CAB40747.1	AJ011889	Solanum tuberosum	CRA49370.1	X69712	Manihot esculenta
BAA82828.1	AB023498	Oryza sativa	AAC72336.1	AF064563	Hordeum vulgare
CAA03846.1	AJ000004	Solanum tuberosum			
CAA72154.1	Y11282	Triticum aestivum	SEQ ID NO. 339		
AAG27623.1	AF286319	Triticum aestivum	CAB96173.1	AJ271719	Spinacia oleracea
BAA03738.1	D16201	Oryza sativa	AAA21277.1	U09194	Mesembryanthemum crystallinum
AAD30187.1	AF076680	Aegilops tauschii	AAB34986.1	S79242	Mesembryanthemum crystallinum
AAC69754.1	AF064561	Hordeum vulgare	CAA41115.1	X58108	Lycopersicon esculentum
AAK26822.1	AF338432	Triticum aestivum	CAB75428.1	AJ271785	Lupinus luteus
CRA56320.1	X80010	Pisum sativum	CAR82232.1	Z28386	Ricinus communis
AAC33764.1	AF072725	Zea mays	CAC00533.1	AJ132581	Hevea brasiliensis
AAA18571.1	L08065	Zea mays	CAC00532.1	AJ132580	Hevea brasiliensis
AAB17086.1	U66376	Triticum aestivum	AAC49173.1	U09450	Oryza sativa
AAK26821.1	AF338431	Aegilops tauschii	AAD04187.1	U17973	Zea mays
AAC69753.1	AF064560	Hordeum vulgare	CAA39454.1	X55981	Zea mays
BAB40334.1	AB042937	Ipomoea batatas	CAA47043.1	X66412	Chlamydomonas reinhardtii
CAA54308.1	X77012	Manihot esculenta	CAA41116.1	X58109	Lycopersicon esculentum
CAA70038.1	Y08786	Solanum tuberosum	AAB35826.2	S79816	Echinocloa phyllopogon
BAA82349.1	AB029549	Phaseolus vulgaris	BAA04612.1	D17767	Oryza sativa
CAA49463.1	X69805	Solanum tuberosum	BAA04612.1	D17767	Oryza sativa
CAB40981.1	AJ237897	Triticum aestivum	AAC34559.1	AF082596	Leavenworthia crassa
CAB40979.1	AJ237897	Triticum aestivum	AAC34558.1	AF082595	Leavenworthia stylosa
CAB40980.1	AJ237897	Triticum aestivum	AAC34557.1	AF082594	Leavenworthia uniflora
AAG27622.1	AF286318	Triticum aestivum	AAC34555.1	AF082592	Leavenworthia stylosa
AAD50279.2	AF169833	Sorghum bicolor	AAC34554.1	AF082591	Leavenworthia crassa
			AAD46409.1	AF096253	Lycopersicon esculentum
			AAC34556.1	AF082593	Leavenworthia uniflora

[illegible]

BAB03447.1	AP002817	Oryza sativa	CAA73134.1	Y12531	Brassica oleracea
BAA92400.1	AP001366	Oryza sativa	AAA33000.1	M76647	Brassica oleracea
BAA84803.1	AP000559	Oryza sativa	AAB93834.1	U82481	Zea mays
CAA63102.2	X92205	Petunia x hybrida	CAB89179.1	AJ245479	Brassica napus subsp. nap
CAA63101.1	X92204	Petunia x hybrida	BAA92836.1	AB032473	Brassica oleracea
SEQ ID NO. 348			CAA79355.1	Z18921	Brassica oleracea
CAB61745.1	AJ275311	Cicer arietinum	AAA33008.1	M97667	Brassica napus
SEQ ID NO. 350			AAA62232.1	U00443	Brassica napus
BAA05539.1	D26538	Oryza sativa	BAA06285.1	D30049	Brassica rapa
AAB66889.1	AF010584	Oryza sativa	BAA21132.1	D88193	Brassica rapa
BAA74736.1	AB016809	Citrus unshiu	AAC23542.1	U20948	Ipomoea trifida
SEQ ID NO. 354			BAA92837.1	AB032474	Brassica oleracea
AAB71743.1	U75345	Chlamydomonas reinhardtii	BAA07576.1	D38563	Brassica rapa
AAB71744.1	U75346	Chlamydomonas reinhardtii	BAA07577.2	D38564	Brassica rapa
BAA92520.1	AP001383	Oryza sativa	BAA23676.1	AB000970	Brassica rapa
CAA07568.1	AJ007580	Ribes nigrum	CAA74662.1	Y14286	Brassica oleracea
CAC27140.1	AJ132535	Picea abies	BAB21001.1	AB054061	Brassica rapa
CAA56325.1	X80023	Triticum turgidum	CAA73133.1	Y12530	Brassica oleracea
CAC12820.1	AJ299250	Nicotiana tabacum	CAA67145.1	X98520	Brassica oleracea
SEQ ID NO. 360			CAB41878.1	Y18259	Brassica oleracea
CAA72681.1	Y11931	Nicotiana rustica	CAA74661.1	Y14285	Brassica oleracea
CAA63777.1	X93564	Solanum tuberosum	CAB41879.1	Y18260	Brassica oleracea
AA74441.1	U25027	Glycine max	AAD52097.1	AF088885	Nicotiana tabacum
AAD26119.1	AF108123	Brassica napus	AAK21965.1	AY028699	Brassica napus
SEQ ID NO. 361			AAA33915.1	L27821	Oryza sativa
AAC33765.1	AF072849	Oryza sativa subsp. indica	CAB51836.1	AJ243961	Oryza sativa
SEQ ID NO. 362			BAA92954.1	AP001551	Oryza sativa
AAF34800.1	AF227980	Euphorbia esula	BAA82556.1	AB030083	Populus nigra
SEQ ID NO. 363			SEQ ID NO. 368		Oryza sativa
BAA22813.1	D26015	Nicotiana tabacum	BAB16860.1	AP002537	
BAB21205.1	AP002913	Oryza sativa	SEQ ID NO. 373		Avena sativa
SEQ ID NO. 366			CAB06081.1	Z83832	
AAD21872.1	AF078082	Phaseolus vulgaris	SEQ ID NO. 374		
			BAB32917.1	AP003047	Oryza sativa
			CAB56058.1	AJ133787	Oryza sativa
			SEQ ID NO. 375		
			AAB67721.1	AF015269	Zea mays

SEQ ID NO. 379	AAA17732.1	L19074	Catharanthus roseus	AAD41006.1	AF107023	Triticum aestivum
	AAB94586.1	AF022457	Glycine max	BAA87331.1	AB012694	Lilium longiflorum
	AAK31592.1	AY029178	Brassica rapa subsp. pekinensis	AAB86857.1	AF031547	Fritillaria agrestis
	CAA89260.1	Z49263	Pisum sativum	CAA07233.1	AJ006767	Cicer arietinum
	AAB94588.1	AF022459	Glycine max	AA50303.1	L34578	Pisum sativum
	BAB40322.1	AB036772	Triticum aestivum	CAA77867.1	Z11842	Lycopersicon esculentum
	AAG33645.1	AF0922917	Vicia sativa	AAF64525.1	AF253416	Lycopersicon chilense
	AAD10204.1	AF030260	Vicia sativa	AAB03076.1	U01890	Lycopersicon pennellii
	CAA70575.1	Y09423	Nepeta racemosa	SEQ ID NO. 396		
	BAA22422.1	AB001379	Glycyrrhiza echinata	CAA85320.1	Z36749	Glycine max
	AA322913.1	M32885	Persea americana	SEQ ID NO. 402		
	AAG14962.1	AF214008	Brassica napus	AAD40979.1	AF089851	Glycine max
	AAG14961.1	AF214007	Brassica napus	CAA08855.1	AJ009825	Cicer arietinum
	BAA93634.1	AB025016	Lotus japonicus	AAD49420.1	AF172681	Canavalia lineata
				BAA77206.1	AB026253	Pisum sativum
SEQ ID NO. 386				AA62490.1	L39931	Pisum sativum
AAG14454.1	AF283706		Tulipa gesneriana	CAA45526.1	X64201	Lens culinaris
AAG14456.1	AF283708		Tulipa gesneriana	AAB34918.2	S78994	Lens culinaris
AAG14455.1	AF283707		Tulipa gesneriana	CAA06833.1	AJ006052	Cicer arietinum
AAC08401.1	AF053564		Mesembryanthemum crystallinum	SEQ ID NO. 413		
SEQ ID NO. 393				AAD21872.1	AF078082	Phaseolus vulgaris
CAA73171.1	Y12599		Apium graveolens	AAB93834.1	U82481	Zea mays
AA50578.1	U03391		Lycopersicon esculentum	CAA73134.1	Y12531	Brassica oleracea
AAK29450.1	AF352247		Pisum sativum	AAC23542.1	U20948	Ipomoea trifida
AAC41651.1	L29456		Nicotiana tabacum	CAA67145.1	X98520	Brassica oleracea
AAK29452.1	AF352249		Lathyrus sativus	BAA23676.1	AB000970	Brassica rapa
AAK29454.1	AF352251		Lens culinaris	CAA41878.1	Y18259	Brassica oleracea
AAK29456.1	AF352253		Lens culinaris	CAA73133.1	Y12530	Brassica oleracea
AAK29453.1	AF352250		Lathyrus sativus	CAA41879.1	Y18260	Brassica oleracea
BAB8671.1	AB029614		Nicotiana tabacum	CAA74662.1	Y14286	Brassica oleracea
AAK29449.1	AF352246		Pisum sativum	AA62232.1	U00443	Brassica napus
AAK29455.1	AF352252		Lens culinaris	AAA33000.1	M76647	Brassica oleracea
AAK29451.1	AF352248		Pisum sativum	CAA74661.1	Y14285	Brassica oleracea
CAA12232.1	AJ224933		Lycopersicon esculentum	BAA92836.1	AB032473	Brassica oleracea
CAA29123.1	X05636		Pisum sativum	CAB89179.1	AJ245479	Brassica napus subsp. napus
AAE27930.1	AF222804		Euphorbia esula	AAA33008.1	M97667	Brassica napus
CAA40362.1	X57077		Zea mays	BAA21132.1	D88193	Brassica rapa
CAA42529.2	X59872		Triticum aestivum	BAA06285.1	D30049	Brassica rapa



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BAB39687.1	AB022917	Marchantia paleacea var.	AAC01746.1	AF044489	Oryza sativa
diptera			AAF78016.1	AF238472	Oryza sativa
AAB67863.1	U56698	Ceratodon purpureus	AAD44029.1	AF085164	Hordeum vulgare
AAB19058.1	U72993	Ceratodon purpureus	AAD46416.1	AF100766	Oryza sativa
CAA43698.1	X61458	Selaginella martensii	AAF68400.1	AF237570	Oryza sativa
CAA52933.1	X75025	Physcomitrella patens	AAF78021.1	AF238477	Oryza sativa
AAB41397.1	U56729	Sorghum bicolor	AAF68397.1	AF237567	Oryza sativa
AAA33957.1	L34842	Glycine max	AAD46916.1	AF164020	Oryza sativa
CAA32242.1	X14077	Pisum sativum	AAD44032.1	AF085167	Hordeum vulgare
AAA33682.1	M37217	Pisum sativum	AAD44031.1	AF085166	Hordeum vulgare
AAB21533.2	S84872	Solanum tuberosum	BAB39437.1	AF003338	Oryza sativa
AAB47994.1	U84970	Lathyrus sativus	AAF78019.1	AF238475	Oryza sativa
AAA33115.1	M15265	Cucurbita pepo			
CAA04679.1	AJ001318	Populus tremula x Populus	SEQ ID NO. 420		
tremuloides			AAA73563.1	L16767	Nicotiana tabacum
BAA99408.1	AB036762	Armoracia rusticana	AAA34109.1	L16787	Nicotiana tabacum
BAA99410.1	AB036764	Armoracia rusticana	CAA98188.1	Z73960	Lotus japonicus
BAA99409.1	AB036763	Armoracia rusticana	CAA98187.1	Z73959	Lotus japonicus
AAB41398.2	AF182394	Sorghum bicolor	AAD18006.1	AF112244	Zea mays
BAA31856.1	AB016168	Adiantum capillus-veneris	CAA98168.1	Z73940	Lotus japonicus
BAA31710.1	AB016151	Adiantum capillus-veneris	CAA89049.1	Z49190	Beta vulgaris
CAA74992.1	Y14676	Nicotiana plumbaginifolia	AAA34254.1	L08131	Volvox carteri
AAA34092.1	L10114	Nicotiana tabacum	CAA98182.1	Z73954	Lotus japonicus
CAA74908.1	Y14572	Solanum tuberosum	CAA98169.1	Z73941	Lotus japonicus
AAG25725.1	AF309806	Populus balsamifera subsp.	CAA89021.1	Z49152	Beta vulgaris
trichocarpa			AAB97114.1	U58853	Glycine max
CAA05293.1	AJ002281	Lycopersicon esculentum	CAA98179.1	Z73951	Lotus japonicus
AAB24397.1	S51538	Solanum tuberosum	AAD28731.1	AF112964	Triticum aestivum
AAD50631.1	AF122901	Lycopersicon esculentum	CAA04701.1	AJ001367	Daucus carota
CAA40795.2	X57563	Oryza sativa subsp. indica	BAA02112.1	D12544	Pisum sativum
AAG25726.1	AF309807	Populus balsamifera subsp.	CAC19792.1	AJ292320	Oryza sativa
trichocarpa			CAA98170.1	Z73942	Lotus japonicus
SEQ ID NO. 418			AAB71504.1	U82219	Prunus armeniaca
AAF78018.1	AF238474	Oryza sativa	BAA02110.1	D12542	Pisum sativum
AAD46917.1	AF164021	Oryza sativa	CAA98171.1	Z73943	Lotus japonicus
AAF78044.1	AF248493	Oryza sativa	CAA46600.1	X65650	Pisum sativum
AAC27489.1	AF077130	Oryza sativa	CAA46112.1	X64941	Nicotiana plumbaginifolia
AAC02535.1	AF044260	Oryza sativa	CAA90082.1	Z49902	Pisum sativum
AAC49629.1	U51330	Triticum aestivum	BAA02113.1	D12545	Pisum sativum
AAF68398.1	AF237568	Oryza sativa	CAC24477.1	AJ296336	Cichorium intybus x Cichorium
			endivia		

CAA98175.1	273947	Lotus japonicus	AA53694.1	U59379	Brassica napus
SEQ ID NO. 421			AAD49231.1	AF159386	Secale cereale
AAD04034.1	AF081794	Nicotiana tabacum	BAB39913.1	AP002912	Oryza sativa
AAD20458.1	AF099969	Nicotiana tabacum	AAD56954.1	AF186240	Secale cereale
SEQ ID NO. 422			CAA55398.1	X78821	Chlamydomonas reinhardtii
BAA19928.1	AB003491	Oryza sativa	CAA44209.1	X62335	Chlamydomonas reinhardtii
AAA33491.1	M76685	Zea mays	CAA56851.1	X80888	Chlamydomonas reinhardtii
AAB97526.1	AF042321	Camptotheca acuminata	AAD45358.1	AF160870	Brassica napus
AAB97087.1	AF042320	Camptotheca acuminata	AAB52409.1	U76831	Brassica napus
AAA33490.1	M76684	Zea mays	CAA06736.1	AJ005841	Oryza sativa
AAC25986.1	AF047024	Chlamydomonas reinhardtii	CAA06735.1	AJ005840	Triticum aestivum
SEQ ID NO. 423			CAA53900.1	X76269	Pisum sativum
AAC04671.1	AF018174	Brassica napus	AAC49358.1	U35831	Pisum sativum
CAA45098.1	X63537	Pisum sativum	CAA35826.1	X51462	Spinacia oleracea
AAC49357.1	U35830	Mesembryanthemum crystallinum	CAA35827.1	X51463	Spinacia oleracea
AAC19392.1	AF069314	Spinacia oleracea	SEQ ID NO. 425		
CAA33082.1	X14959	Oryza sativa	AAD16139.1	AF096299	Nicotiana tabacum
BAB20886.1	AB053294	Picea mariana	AAC37515.1	I44134	Cucumis sativus
AAC32111.1	AF051206	Brassica napus	AAF23898.1	AF193802	Oryza sativa
AAB53695.1	U59380	Triticum turgidum subsp. durum	BAA82107.1	AB022693	Nicotiana tabacum
CAA05081.1	AJ001903	Nicotiana tabacum	BAA77383.1	AB020590	Nicotiana tabacum
CAA77847.1	Z11803	Fagopyrum esculentum	AAD55974.1	AF121353	Petroselinum crispum
BAA13524.1	D87984	Oryza sativa	CAA88326.1	Z48429	Avena fatua
BAA04864.1	D21836	Oryza sativa	AAC31956.1	AF080595	Pimpinella brachycarpa
AAB51522.1	U92541	Oryza sativa	AAC49527.1	U48831	Petroselinum crispum
BAA05546.1	D26547	Oryza sativa	BAA86031.1	AB026890	Nicotiana tabacum
AAF88067.1	AF286593	Triticum aestivum	AAD16138.1	AF096298	Nicotiana tabacum
CAA41415.1	X58527	Nicotiana tabacum	AAC49529.1	U58540	Petroselinum crispum
CAA94534.1	Z70677	Ricinus communis	AAG35658.1	AF204925	Petroselinum crispum
AAD49232.1	AF159387	Lolium perenne	BAB16432.1	AB041520	Nicotiana tabacum
AAD49234.1	AF159389	Phalaris coerulescens	CAA88331.1	Z48431	Avena fatua
AAD49233.1	AF159388	Phalaris coerulescens	BAA77358.1	AB020023	Nicotiana tabacum
AAD49230.1	AF159385	Hordeum bulbosum	AAC49528.1	U56834	Petroselinum crispum
BAA25681.1	AB010434	Brassica rapa	AAG35659.1	AF204926	Petroselinum crispum
CAA55399.1	X78822	Chlamydomonas reinhardtii	CAB66338.1	AJ279697	Betula pendula
CAA56850.1	X80887	Chlamydomonas reinhardtii	AAD27591.1	AF121354	Petroselinum crispum
AAG35777.1	AF273844	Brassica oleracea var. alboglabra	AAF61864.1	AF193771	Nicotiana tabacum
			AAF61863.1	AF193770	Nicotiana tabacum
			SEQ ID NO. 433		

CAA59800.1	X85805	Zea mays	AAD20330.1	AF110268	Oryza sativa
AAB60276.1	U09989	Zea mays	CAB85496.1	AJ132894	Medicago truncatula
AAD46188.1	AF156691	Nicotiana plumbaginifolia	CAC28223.1	AJ286748	Sesbania rostrata
BAA08134.1	D45189	Zostera marina	CAC28222.1	AJ286747	Sesbania rostrata
BAA01058.1	D10207	Oryza sativa	CAB85497.1	AJ132893	Medicago truncatula
AAB17186.1	U72148	Lycopersicon esculentum	AAB84204.1	AF029258	Kosteletzkya virginica
CAA54045.1	X76535	Solanum tuberosum	CAC28220.1	AJ286745	Sesbania rostrata
CAA47275.1	X66737	Nicotiana plumbaginifolia			
AAB84202.2	AF029256	Kosteletzkya virginica	SEQ ID NO. 434		
CAB69823.1	AJ271438	Prunus persica	AAF13731.1	AF002248	Pisum sativum
BAA37150.1	AB022442	Vicia faba	CAA78932.1	Z17226	Pinus sylvestris
CAA59799.1	X85804	Phaseolus vulgaris	CAA78901.1	Z16409	Pinus sylvestris
CAC29436.1	AJ310524	Vicia faba	CAA57877.1	X82497	Nicotiana tabacum
AAB41898.1	U84891	Mesembryanthemum crystallinum	AAF90200.1	AF287276	Hordeum vulgare
AAB35314.2	S79323	Vicia faba	AAC67557.1	AF094775	Oryza sativa
AAD46186.1	AF156679	Nicotiana plumbaginifolia	CAA32197.1	X14036	Lycopersicon esculentum
CAB69824.1	AJ271439	Prunus persica	AAA34159.1	M20241	Lycopersicon esculentum
AAA34052.1	M27888	Nicotiana plumbaginifolia	AAA33711.1	M21317	Petunia x hybrida
AAF98344.1	AF275745	Lycopersicon esculentum	CAA57492.1	X81962	Pisum sativum
AAD55399.1	AF179442	Lycopersicon esculentum	CAA41406.1	X58516	Pinus sylvestris
AAA34094.1	M80489	Nicotiana plumbaginifolia	CAA59049.1	X84308	Hordeum vulgare
CAA54046.1	X76536	Solanum tuberosum	AAB65793.1	AF010321	Oryza sativa
AAA34173.1	M60166	Lycopersicon esculentum	AAD55568.1	AF110786	Volvox carteri f. nagariensis
AAA34098.1	M80490	Nicotiana plumbaginifolia	CAA41407.1	X58517	Pinus sylvestris
CAC29435.1	AJ310523	Vicia faba	CAA33330.1	X15258	Lycopersicon esculentum
BAA06629.1	D31843	Oryza sativa	CAA50763.1	X71965	Pyrobotrys stellata
CAB85495.1	AJ132892	Medicago truncatula	AAAB4545.1	L19651	Chloroplast-Pisum sativum
CAB85494.1	AJ132891	Medicago truncatula	AAF44703.1	AF241525	Alonsoa meridionalis
AAD46187.1	AF156683	Nicotiana plumbaginifolia	CAA45523.1	X64198	Nicotiana tabacum
AAK31799.1	AY029190	Lilium longiflorum	AAD55569.1	AF110787	Volvox carteri f. nagariensis
AAA34099.1	M80491	Nicotiana plumbaginifolia	AAA34140.1	M17633	Lycopersicon esculentum
CAA52107.1	X73901	Dunaliella bioculata	AAC67558.1	AF094776	Oryza sativa
AAAB49042.1	U54690	Dunaliella acidophila	AAF23819.1	AF218305	Hordeum vulgare
AAG01028.1	AF289025	Cucumis sativus	CAA46235.1	X65119	Chlamydomonas reinhardtii
AAAB1348.1	U38965	Vicia faba	AAD03734.1	AF104633	Chlamydomonas reinhardtii
AAA34096.1	M80492	Nicotiana plumbaginifolia	AAD03733.1	AF104632	Chlamydomonas reinhardtii
AAA20600.1	U08984	Zea mays	AAA34186.1	J03558	Lycopersicon esculentum
AAA20601.1	U08985	Zea mays	AAG28464.1	AF195794	Chlamydomonas reinhardtii
AAK32118.1	AF308816	Hordeum vulgare	CAA41404.1	X58514	Pinus sylvestris
CAC10554.1	AJ295612	Hordeum vulgare	CAA41405.1	X58515	Pinus sylvestris
AAF97591.1	AF263917	Lycopersicon esculentum	CAA78900.1	Z16408	Pinus sylvestris

AAF44702.1	AF241524	Asarina barclaiana	AAF35186.1	AF195865	Gossypium hirsutum
CRA44777.1	X63052	Hordeum vulgare	CRA48623.1	X68656	Hordeum vulgare
CRA39883.1	X56538	Pisum sativum	AAA86694.1	U18127	Hordeum vulgare
CRA31232.1	X12735	Hordeum vulgare	AAF35185.1	AF195864	Gossypium hirsutum
AAA33651.1	K02067	Pisum sativum	AAF35184.1	AF195863	Gossypium hirsutum
CRA10284.1	AJ131044	Cicer arietinum	AAK20395.1	AF334185	Triticum aestivum
AAA33396.1	M29334	Lemna gibba	AAF23459.1	AF208833	Capsicum annuum
CRA74179.1	Y13865	Beta vulgaris	AAF26451.1	AF221503	Pyrus communis
AAF89207.1	AF279250	Vigna radiata	AAF14232.1	AF109195	Hordeum vulgare
AAA64414.1	U23188	Zea mays	CRA80809.1	Z23271	Oryza sativa
AAA64415.1	U23189	Zea mays	AAAB06443.1	U66105	Zea mays
CRA39376.1	X55892	Zea mays	AAA75599.1	U15153	Gossypium hirsutum
CRA26211.1	X02358	Petunia sp.	AAAB34774.1	S78173	Gossypium hirsutum
			AAA33493.1	J04176	Zea mays
SEQ ID NO. 436			AAF26450.1	AF221502	Malus x domestica
AAAD10836.1	U52079	Solanum tuberosum	AAF23460.1	AF208834	Capsicum annuum
BAA83352.1	AP000391	Oryza sativa	CRA50661.1	X71668	Sorghum bicolor
BAA90508.1	AP001111	Oryza sativa	CRA50660.1	X71667	Sorghum bicolor
BAA90507.1	AP001111	Oryza sativa	CRA05771.1	AJ002958	Cicer arietinum
			CRA63407.1	X92748	Beta vulgaris
SEQ ID NO. 438			CAB96874.1	AJ277164	Malus x domestica
CRA81057.1	Z25802	Petunia x hybrida	AAA34032.1	M58635	Spinacia oleracea
CRA50377.1	X71060	Petunia x hybrida	AAD09107.1	AF101038	Brassica napus
CRA50376.1	X71059	Petunia x hybrida	CRA65477.1	X96716	Prunus dulcis
BAA89008.1	AB027454	Petunia x hybrida	CRA48622.1	X68655	Hordeum vulgare
			CRA85483.1	Z37114	Hordeum vulgare
SEQ ID NO. 439			AAAB80805.1	U90342	Pinus radiata
AAF28385.1	AF151214	Nicotiana glauca	AAAB18815.1	U77295	Oryza sativa
AAA74624.1	U31766	Oryza sativa	CRA65475.1	X96714	Prunus dulcis
AAG29777.1	AF228333	Gossypium hirsutum	CRA69949.1	Y08691	Oryza sativa
AAAB70539.1	AF017359	Oryza sativa	AAK28533.1	AF329829	Corylus avellana
AAAB70538.1	AF017358	Oryza sativa	AAAB96834.1	M64746	Daucus carota
AAC00499.1	AF044204	Gossypium hirsutum	AAF26449.1	AF221501	Prunus avium
AAF71695.1	AF198168	Aerides japonica	CRA45210.1	X63669	Triticum turgidum subsp. durum
CRA48621.1	X68654	Hordeum vulgare			
CRA91436.1	Z66529	Hordeum vulgare			
AAAB05812.1	U63993	Hordeum vulgare			
CAA91435.1	Z66528	Hordeum vulgare			
AAK01293.1	AF331710	Avicennia marina			
AAG27707.1	AF302788	Triticum aestivum			
CRA85484.1	Z37115	Hordeum vulgare			
			SEQ ID NO. 445		
			AAC98091.1	AF067401	Oryza sativa
			BAB39155.1	AB048713	Pisum sativum
			AAG13663.1	AF263457	Zea mays
			BAA90816.1	AF001168	Oryza sativa
			AAC98090.1	AF067400	Zea mays



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BAA03104.1	D14002	Lactuca sativa	BAA01394.1	D10524	Nicotiana tabacum
CAR47950.1	X67714	Pinus contorta	AAA33930.1	M84968	Silene vulgaris
AAA33124.1	M16057	Cucumis sativus	AAA33931.1	M84969	Silene vulgaris
BAA25392.1	AB012638	Nicotiana sylvestris	AAF61392.1	AF133894	Persea americana
BAA25396.1	AB012641	Nicotiana sylvestris	CAB38119.1	AJ010296	Zea mays
AAB18209.1	U73218	Triticum aestivum	CAB38118.1	AJ010295	Zea mays
AAA50172.1	U01964	Glycine max	AAG34811.1	AF243376	Glycine max
AAA33636.1	M23532	Physcomitrella patens	CAA09190.1	AJ010451	Alopecurus myosuroides
CAR39883.1	X56538	Pisum sativum	CAA09192.1	AJ010453	Alopecurus myosuroides
AAB61237.1	AF003128	Mesembryanthemum crystallinum	CAA09193.1	AJ010454	Alopecurus myosuroides
AAB61238.1	AF003129	Mesembryanthemum crystallinum	AAG34814.1	AF243379	Glycine max
AAA18529.1	I07119	Chloroplast Gossypium hirsutum	CAA09191.1	AJ010452	Alopecurus myosuroides
CAA99993.1	Z75663	Apium graveolens	AAG34812.1	AF243377	Glycine max
AAB61236.1	AF003127	Mesembryanthemum crystallinum	CAA39487.1	X56012	Triticum aestivum
CAA39376.1	X55892	Zea mays	AAD56395.1	AF184059	Triticum aestivum
CAA32657.1	X14505	Pinus sylvestris	CAA68993.1	Y07721	Petunia x hybrida
AAA80592.1	U21112	Solanum tuberosum	AAA33469.1	M16902	Zea mays
BAA24493.1	AB006081	Fagus crenata	AAA33470.1	M16901	Zea mays
CAA57408.1	X81809	Picea abies	AAA20585.1	U12679	Zea mays
BAA25389.1	AB012637	Nicotiana sylvestris	CAA56047.1	X79515	Zea mays
BAA25391.1	AB012637	Nicotiana sylvestris	CAA39480.1	X56004	Triticum aestivum
AAC78690.1	S73603	Pinus thunbergii	AAC64007.1	AF062403	Oryza sativa
CAA32900.1	X14794	Zea mays	AAG334823.1	AF2444680	Zea mays
			AAG334817.1	AF2444674	Zea mays
			CAA05354.1	AJ002380	Oryza sativa
			AAG334820.1	AF244677	Zea mays
		Lycopersicon esculentum	AAG334821.1	AF244678	Zea mays
		Lycopersicon esculentum	CAB66333.1	AJ279691	Betula pendula
		Lycopersicon esculentum	AAG334818.1	AF2444675	Zea mays
		Physcomitrella patens	AAG334816.1	AF2444673	Zea mays
		Lycopersicon esculentum	AAG334822.1	AF244679	Zea mays
		Lycopersicon esculentum	CAA05355.1	AJ002381	Oryza sativa
		Mougeotia scalaris			
			SEQ ID NO.	482	
			BAA31452.1	AB010416	Raphanus sativus
		Brassica rapa subsp. pekinensis	AAB04557.1	U62778	Gossypium hirsutum
		Oryza sativa	CAA49854.1	X70417	Antirrhinum majus
			AAK26770.1	AF326503	Zea mays
		Hyoscyamus muticus	AAF90121.1	AF254799	Hordeum vulgare
		Solanum commersonii	AAK26768.1	AF326501	Zea mays
		Nicotiana glauca	AAK26769.1	AF326502	Zea mays
			SEQ ID NO.	481	
			CAA55039.1	X78203	
			AAB65163.1	AF002692	
			CAA96431.1	Z71749	
			SEQ ID NO.	480	
			AAD33602.1	AF133302	
			AAG40130.1	AF203879	



AAD10495.1	U86763	Triticum aestivum	AAD43343.1	AF159139	Gossypium hirsutum
BAA12711.1	D84669	Raphanus sativus	AAG45488.1	AY013256	Lycopersicon esculentum
AAD39372.1	AF118381	Brassica napus	AAF78756.1	AF271358	Oryza sativa
AAD10494.1	U86762	Triticum aestivum	AAF78754.1	AF271356	Oryza sativa
AAB51393.1	U92651	Brassica oleracea var. botrytis	CAB43062.1	AJ133000	Craterostigma plantagineum
CAA56553.1	X80266	Hordeum vulgare	CAB43063.1	AJ133001	Craterostigma plantagineum
BAB12722.1	AB048248	Pyrus communis	BAA19467.1	AB001920	Oryza sativa
BAA05017.1	D25534	Oryza sativa	BAA19466.1	AB001919	Oryza sativa
AAC09245.1	AF037061	Zea mays	CAB06620.1	Z84822	Nicotiana tabacum
AAK26767.1	AF326500	Zea mays	AAG48162.1	AF154425	Lycopersicon esculentum
AAB17284.1	U43291	Mesembryanthemum crystallinum	AAB511392.1	U92656	Vigna unguiculata
CAA64952.1	X95650	Tulipa gesneriana	AAD17208.1	AF113918	Brassica oleracea var. cap
AAC04846.1	AF020793	Medicago sativa	AAC78487.1	AF090445	Brassica oleracea
			AAG45486.1	AY013253	Lycopersicon esculentum
			BAA11135.1	D73410	Zea mays
SEQ ID NO. 483			AAB70463.1	U96438	Pimpinella brachycarpa
AAC28135.1	AF034572	Glycine max	AAF78755.1	AF271357	Oryza sativa
CAC19494.1	AJ293343	Zea mays	AAC79125.1	U85482	Brassica oleracea var. capitata
BAA96829.1	AB026558	Oryza sativa	AAD17209.1	AF113919	Brassica oleracea var. capitata
CAA74725.1	Y14339	Lycopersicon esculentum	AAC78486.1	AF090444	Brassica oleracea
AAB51521.1	U92540	Oryza sativa	BAA11136.1	D73411	Oryza sativa
BAA96830.1	AB026559	Oryza sativa	AAB04095.1	I33686	Ricinus communis
BAA99540.1	AB032061	Oryza sativa	AAB37305.1	U72693	Ricinus communis
BAA96832.1	AB026561	Oryza sativa	AAG45485.1	AY013252	Lycopersicon esculentum
CAA65660.1	X96974	Spinacia oleracea	AAE17557.1	AF201661	Lycopersicon esculentum
AAB82138.1	AF022735	Oryza sativa	AAF05818.1	AF195614	Nicotiana tabacum
AAC35982.1	AF088914	Petunia x hybrida	AAG50297.1	AY013254	Lycopersicon esculentum
BAA07128.1	D37886	Oryza sativa			
AAF70292.1	AF255338	Glycine max			
AAF34770.1	AF227625	Euphorbia esula	SEQ ID NO. 489		
BRA78755.1	AB023482	Oryza sativa	CAC34417.1	AJ311624	Pisum sativum
BRA95832.1	AP002069	Oryza sativa	AAA86365.1	U21743	Brassica napus
BRA95822.1	AP002069	Oryza sativa	BAB17848.1	AB015593	Oryza sativa
BAA96831.1	AB026560	Oryza sativa	AAC04836.1	AF032975	Oryza sativa
BAA21651.1	D78173	Spinacia oleracea	AAC05582.1	AF051156	Oryza sativa
BAA96833.1	AB026562	Oryza sativa	BAA74702.1	AB010876	Oryza sativa
			CAA75907.1	Y15962	Hordeum vulgare
			CAB77393.1	AJ276491	Phaseolus vulgaris
SEQ ID NO. 484			BAA08266.1	D45425	Ipomoea nil
AAB84193.1	AF029242	Pisum sativum	AAG36666.1	AF310017	Beta vulgaris
			AAG36667.1	AF310018	Beta vulgaris
SEQ ID NO. 487			AAK28807.1	AF310960	Linum usitatissimum
AAG45487.1	AY013255	Lycopersicon esculentum			



CAB07803.1	Z93768	Nicotiana tabacum	BAA92337.1	AB038790	Vicia faba
CAA05491.1	AJ002485	Medicago sativa	BAA92336.1	AB038789	Vicia faba
BAA92244.1	AB038648	Vicia faba	SEQ ID NO. 493		
CAA07470.1	AJ007332	Catharanthus roseus	AAD51109.1	AF176040	Mesembryanthemum crystalli
CAA05492.1	AJ002486	Medicago sativa	CAA51821.1	X73419	Lycopersicon esculentum
CAA05494.1	AJ002488	Medicago sativa	AAA64427.1	I29077	Pisum sativum
AAA33545.1	M60215	Zea mays	AAA34125.1	I23762	Lycopersicon esculentum
CAA82263.1	Z28627	Acetabularia cliftonii	AAB88617.1	AF034946	Zea mays
CAA82264.1	Z28632	Acetabularia cliftonii	AAB02168.1	U15971	Oryza sativa
CAA56766.1	X80788	Medicago sativa subsp. x varia	AAA86089.1	U17250	Brassica oleracea
AAD38856.1	AF156101	Chlamydomonas reinhardtii	BAA21006.1	D17786	Oryza sativa
CAA05493.1	AJ002487	Medicago sativa	AAD42941.1	AF091621	Catharanthus roseus
CAB07805.1	Z93770	Nicotiana tabacum	BAB40310.1	AB026055	Nicotiana tabacum
CAA88254.1	Z48221	Phaseolus vulgaris	BAB40311.1	AB026056	Nicotiana tabacum
CAA40686.1	X57438	Brassica napus	AAA34310.1	M62720	Triticum aestivum
AAD41126.1	AF159061	Oryza sativa subsp. indica	AAF73016.1	AF262934	Avicennia marina
CAB46506.1	AJ007496	Nicotiana tabacum	CAA58111.1	X82938	Lycopersicon esculentum
AAD22116.1	AF134552	Oryza sativa subsp. indica	CAA06493.1	AJ005348	Cicer arietinum
BAA92699.1	AB039918	Vicia faba	BAA90392.1	AP001081	Oryza sativa
CAA49849.1	X70399	Medicago sativa	AAC12662.1	AF032468	Zea mays
AAD48068.1	AF173881	Oryza sativa subsp. indica	CAA05772.1	AJ002959	Zea mays
CAA81395.1	Z26654	Acetabularia cliftonii	AAF22280.1	AF165420	Mesembryanthemum crystallinum
CAB07807.1	Z93772	Nicotiana tabacum	AAB63513.1	AF008910	Prunus armeniaca
CAA40687.1	X57439	Brassica napus	AAF03236.1	AF180143	Glycine max
CAA07471.1	AJ007333	Catharanthus roseus	AAA34309.1	M28059	Triticum aestivum
BAA92698.1	AB039917	Vicia faba	CAA10494.1	AJ131733	Pseudotsuga menziesii
BAA92697.1	AB039916	Vicia faba	AAC32141.1	AF051240	Picea mariana
AAF86353.1	AF283668	Oryza sativa subsp. indica	SEQ ID NO. 495		
CAA81126.1	Z26041	Helianthus annuus	BAA05965.1	D28777	Citrullus lanatus
AAC72838.1	AF097182	Oryza sativa	BAB20861.1	AB029511	Solanum tuberosum
CAC11129.1	AJ298829	Fagus sylvatica	AAC25635.1	AF044172	Solanum tuberosum
AAA91806.1	U49113	Oryza sativa	AAD23909.1	AF073697	Oryza sativa
AAD09953.1	AF107464	Hevea brasiliensis	AAD23907.1	AF073695	Oryza sativa
CAA87385.1	Z47076	Malus x domestica	CAA59798.1	X85803	Zea mays
CAB07806.1	Z93771	Nicotiana tabacum	BAB20862.1	AB029512	Solanum tuberosum
CAC11128.1	AJ298828	Fagus sylvatica	AAC25636.1	AF044173	Solanum tuberosum
CAA87387.1	Z47078	Malus x domestica	BAA03542.1	D14722	Spinacia oleracea
BAA92333.1	AB038786	Vicia faba	CAA47329.1	X66860	Spinacia oleracea
CAA87386.1	Z47077	Malus x domestica	CAC12819.1	AJ299249	Nicotiana tabacum
BAA92338.1	AB038791	Vicia faba			
BAA92334.1	AB038787	Vicia faba			

BAA93051.1	AB040503	Allium tuberosum	AAG34816.1	AF244673	Zea mays
BAB20863.1	AB029513	Solanum tuberosum	CRA05354.1	AJ002380	Oryza sativa
CAG06819.1	AJ006024	Cicer arietinum	AAG34824.1	AF244681	Zea mays
CAC09469.1	AL442113	Oryza sativa	CRA05355.1	AJ002381	Oryza sativa
BAA07177.1	D37963	Spinacia oleracea	SEQ ID NO. 498		
AAD23908.1	AF073696	Oryza sativa	AAB05871.2	U63784	Catharanthus roseus
AAD23910.1	AF073698	Oryza sativa	CAB65911.1	AJ249831	Lemna minor
AAF78529.1	AF195239	Pyrus pyrifolia	AAF18999.1	AF212155	Allium cepa
SEQ ID NO. 497			AAC26855.1	AF069951	Enteromorpha intestinalis
AAG34812.1	AF243377	Glycine max	SEQ ID NO. 499		
AAG34814.1	AF243379	Glycine max	AAC62017.1	AF077547	Brassica juncea
CAG68993.1	Y07721	Petunia x hybrida	AAF26434.1	AF220097	Brassica juncea
CAB38119.1	AJ010296	Zea mays	AAF26435.1	AF220098	Brassica juncea
CRA09190.1	AJ010451	Alopecurus myosuroides	AAB60880.1	AF002017	Dianthus caryophyllus
CRA09192.1	AJ010453	Alopecurus myosuroides	AAF42972.1	AF127241	Nicotiana tabacum
CRA09191.1	AJ010452	Alopecurus myosuroides	BAA25685.1	AB012873	Nicotiana sylvestris
CAB38118.1	AJ010295	Zea mays	CAB64599.1	AJ251898	Pisum sativum
CRA09193.1	AJ010454	Alopecurus myosuroides	AAD09204.1	U35367	Datura stramonium
AAG34811.1	AF243376	Glycine max	BAA84799.1	AP000559	Glycine max
CAG55039.1	X78203	Hyoscyamus muticus	AAB67887.1	U63832	Oryza sativa
AAA20585.1	U12679	Zea mays	AAF42971.1	AF127240	Dianthus caryophyllus
AAA33930.1	M84968	Silene vulgaris	AAF42970.1	AF127239	Nicotiana tabacum
CAG56047.1	X79515	Zea mays	AAC68511.1	AF045666	Nicotiana tabacum
AAA33931.1	M84969	Silene vulgaris	CAG65585.1	X96791	Theobroma cacao
AAB65163.1	AF002692	Solanum commersonii	AAA61347.1	LI16582	Vitis vinifera
BRA01394.1	D10524	Nicotiana tabacum	AAC68530.1	AF045685	Lycopersicon esculentum
AAG34823.1	AF244680	Zea mays	AAC68529.1	AF045684	Arabidopsis arenosa
AAC64007.1	AF062403	Oryza sativa	AAC68525.1	AF045680	Capsella bursa-pastoris
CAG6431.1	Z71749	Nicotiana plumbaginifolia	AAC68526.1	AF045681	Arabis drummondii
AAA33470.1	M16901	Zea mays	AAC68535.1	AF045690	Barbarea vulgaris
AAA33469.1	M16902	Zea mays	AAC68534.1	AF045689	Nasturtium officinale
CAG39487.1	X56012	Triticum aestivum	AAC68533.1	AF045688	Thellungiella salsuginea
AAG34817.1	AF244674	Zea mays	AAC68532.1	AF045687	Thlaspi arvense
AAG34822.1	AF244679	Zea mays	AAC68531.1	AF045686	Stanleya pinnata
AAD56395.1	AF184059	Triticum aestivum	AAC68510.1	AF045665	Sisymbrium altissimum
AAG34820.1	AF244677	Zea mays	AAC68528.1	AF045663	Aethionema grandiflora
CAG39480.1	X56004	Triticum aestivum	AAC68519.1	AF045674	Brassica oleracea
AAF61392.1	AF133894	Persea americana	AAC68527.1	AF045682	Arabidopsis arenosa
AAG34821.1	AF244678	Zea mays			Brassica nigra
AAG34818.1	AF244675	Zea mays			

AAC68523.1	AF045678	Thellungiella salsuginea	AAF75791.1	AF271892	Pisum sativum
AAC68514.1	AF045669	Arabis drummondii	AAF40306.1	AF156667	Vigna radiata
AAC68524.1	AF045679	Nasturtium officinale	CAA68193.1	X99937	Spinacia oleracea
AAC68522.1	AF045677	Thlaspi arvense	BAA95704.1	AB042643	Oryza sativa
AAC68513.1	AF045668	Polanisia dodecandra	BAA95705.1	AB042644	Oryza sativa
AAC68518.1	AF045673	Capsella bursa-pastoris	AAD20980.1	AF079782	Zea mays
AAC68515.1	AF045670	Barbarea vulgaris			
AAC68521.1	AF045676	Stanleya pinnata	SEQ ID NO. 532		
AAC68520.1	AF045675	Sisymbrium altissimum	BAA95893.1	AP002071	Oryza sativa
AAC68517.1	AF045672	Brassica oleracea	AAB09771.1	U67422	Zea mays
AAC68516.1	AF045671	Brassica nigra	AAG25966.1	AF302082	Nicotiana tabacum
AAC68512.1	AF045667	Carica papaya	BAA78764.1	AB023482	Oryza sativa
CAA40137.1	X56802	Avena sativa	AAK21965.1	AY028699	Brassica napus
AAD24801.1	AF132498	Brassica napus	AAF91323.1	AF244889	Glycine max
BAA21617.1	AB005880	Nicotiana tabacum	AAF91324.1	AF244890	Glycine max
AAB82607.1	AF026809	Ipomoea nil	CAB51834.1	00069	Oryza sativa
			CAC20842.1	AJ250467	Pinus sylvestris
SEQ ID NO. 501			BAA06538.1	D31737	Nicotiana tabacum
CAA52201.1	X74072	Lycopersicon esculentum	AAG00510.1	AF285172	Phaseolus vulgaris
			AAC27894.1	AF023164	Zea mays
SEQ ID NO. 513			AAF91322.1	AF244888	Glycine max
AAB36543.1	U77935	Phaseolus vulgaris	AAG16628.1	AY007545	Brassica napus
			AAF59906.1	AF197947	Glycine max
SEQ ID NO. 514			AAF43496.1	AF131222	Lophopyrum elongatum
CAA32121.1	X13934	Lycopersicon esculentum	BAA84787.1	AP000559	Oryza sativa
CAA90564.1	Z50185	Populus nigra	BAA83373.1	AP000391	Oryza sativa
CAA28398.1	X04693	Spinacia oleracea	AAK11674.1	AF339747	Lophopyrum elongatum
CAA90565.1	Z50186	Populus nigra	AAC27895.1	AF023165	Zea mays
AAB86855.1	AF031545	Fritillaria agrestis	BAA94509.1	AB041503	Populus nigra
AAC78108.1	AF093636	Oryza sativa	BAA94510.1	AB041504	Populus nigra
AAB63590.1	AF009412	Oryza sativa	AAB61708.1	U93048	Daucus carota
CAA82201.1	Z28347	Hordeum vulgare	AAC36318.1	AF053127	Malus x domestica
CAA68696.1	Y00704	Hordeum vulgare	AAF76313.1	AF220603	Lycopersicon esculentum
BAA77274.1	AB026687	Physcomitrella patens	AAB47421.1	U59316	Lycopersicon esculentum
AAA33089.1	L07282	Chlamydomonas reinhardtii	AAK11569.1	AF318493	Lycopersicon hirsutum
AAA33078.1	J05524	Chlamydomonas reinhardtii	AAF59905.1	AF197946	Glycine max
AAD03610.1	AF114235	Scenedesmus obliquus			
BAA84778.1	AB017810	Pediastrum boryanum	SEQ ID NO. 538		
			ARD39440.1	AF132002	Petunia x hybrida
SEQ ID NO. 521			AAD39439.1	AF132001	Petunia x hybrida
BAA03763.1	D16247	Nicotiana sylvestris	AAG32659.1	AF253971	Picea abies

AAG32658.1	AF253970	Picea abies	AAA34292.1	M12277	Triticum aestivum
AAD22495.3	AF134116	Hyacinthus orientalis	AAA98456.1	U16825	Chlamydomonas reinhardtii
CAC12822.1	AJ299252	Nicotiana tabacum	AAA98449.1	U16725	Chlamydomonas reinhardtii
BAB03248.1	AB037183	Oryza sativa	AAA98445.1	U16724	Chlamydomonas reinhardtii
BAB16083.1	AB036883	Oryza sativa	CAA59110.1	X84376	Zea mays
AAC24587.1	AF071893	Prunus armeniaca	CAA30036.1	X06964	Volvox carteri
AAF63205.1	AF245119	Mesembryanthemum crystallinum	CAA30034.1	X06963	Volvox carteri
BAA78738.1	AB023482	Oryza sativa	CAA64985.1	X95689	Allium cepa
AAF76898.1	AF274033	Atriplex hortensis	SEQ ID NO. 550		
AAG43545.1	AF211527	Nicotiana tabacum	AAD46491.1	AF135014	Zea mays
AAG43549.1	AF211531	Nicotiana tabacum	BAA90623.1	AP001129	Oryza sativa
AAG43548.1	AF211530	Nicotiana tabacum	BAA77024.1	AB026124	Lithospermum erythrorhizon
SEQ ID NO. 539			SEQ ID NO. 551		
BAA09645.1	D63331	Nicotiana tabacum	AAC31886.1	AF059484	Gossypium hirsutum
BAA11770.1	D83078	Nicotiana tabacum	AAC49651.1	U68461	Striga asiatica
BAA77679.1	AB027054	Oryza sativa	CAA339280.1	X55751	Solanum tuberosum
SEQ ID NO. 541			AAC49652.1	U68462	Striga asiatica
CAB56756.1	AJ011589	Pisum sativum	AAF03692.1	AF172094	Picea rubens
AAD01907.1	AF030516	Pisum sativum	AAF71264.1	AF246714	Phalaenopsis sp. 'True Lady'
AAG48834.1	AC084218	Oryza sativa	AAG10041.1	AF288226	Setaria italica
SEQ ID NO. 542			AAD41039.1	AF112538	Malva pusilla
AAD29703.1	AF140490	Oryza sativa	CAA45149.1	X63603	Nicotiana tabacum
SEQ ID NO. 545			AAF31643.1	AF143208	Vigna radiata
CAR24924.1	X00043	Triticum aestivum	BAA89214.1	AB032361	Mimosa pudica
CAB01914.1	Z79638	Sesbania rostrata	CAA39278.1	X55749	Solanum tuberosum
AAA86948.1	U10042	Pisum sativum	AAD03741.1	AF111812	Brassica napus
AAA33476.1	M13377	Zea mays	AAF71265.1	AF246715	Phalaenopsis sp. 'True Lady'
AAA33475.1	M13370	Zea mays	CAA39281.1	X55752	Solanum tuberosum
AAA33474.1	M36659	Zea mays	AB38512.1	U81047	Pisum sativum
CAC34411.1	Y18575	Flaveria trinervia	AB38511.1	U81046	Pisum sativum
AAG46106.1	AC073166	Oryza sativa	AB18642.1	U76191	Pisum sativum
BAA85120.1	AB018245	Solanum melongena	AB18641.1	U76190	Pisum sativum
CAB01913.1	Z79637	Sesbania rostrata	CAA62028.1	X90378	Pisum sativum
CAA48924.1	X69180	Lycopersicon esculentum	CAA47899.1	X67666	Pisum sativum
CAA48923.1	X69179	Lycopersicon esculentum	CAA33874.1	X15865	Oryza sativa
AAB94924.1	AF0368387	Capsicum annuum	AAF82805.1	AF282624	Helianthus annuus
CAA56154.1	X79715	Lolium temulentum	CAA48609.1	X68649	Pisum sativum
			AAC64127.1	AF091809	Anemia phyllitidis
			AAF40438.1	AF234528	Avena nuda

CAA39279.1	X55750	Solanum tuberosum	BAA96628.1	AP002482	Oryza sativa
CAA55923.1	X79378	Sorghum bicolor	BAA05649.1	D26602	Nicotiana tabacum
CAA34356.1	X16280	Oryza sativa	CAA57898.1	X82548	Hordeum vulgare
AAC16054.1	AF061019	Coleochaete scutata	AAC99329.1	AF062479	Oryza sativa
AAB38514.1	U81049	Pisum sativum	CAA65244.1	X95997	Solanum tuberosum
AAB18644.1	U76193	Pisum sativum	AAD23582.1	AF128443	Glycine max
CAA33873.1	X15864	Oryza sativa	AAF19402.1	AF203480	Lycopersicon esculentum
AAC64128.1	AF091810	Anemia phyllitidis	AAF19403.1	AF203481	Lycopersicon esculentum
AAD02328.1	AF044573	Brassica oleracea	CAA46556.1	X65606	Hordeum vulgare
AAC05272.1	AF049106	Glycine max	CAA07813.1	AJ007990	Hordeum vulgare
AAC16055.1	AF061020	Mesostigma viride	AAF19401.1	AF203479	Glycine max
AAF87302.1	AF281323	Magnolia denudata	BAA83688.1	AB011967	Oryza sativa
BAA09450.1	D50839	Chlamydomonas reinhardtii	AAB05457.1	U55768	Oryza sativa
BAA09449.1	D50838	Chlamydomonas reinhardtii	AAD17800.1	AF090835	Mesembryanthemum crystalli
AAA34243.1	M33963	Volvox carteri	AAD28791.1	AF145593	Nicotiana tabacum
AAC16053.1	AF061018	Scherffelia dubia	AAD52098.1	U70923	Nicotiana tabacum
AAA33433.1	J01238	Zea mays	CAA82993.1	Z30332	Spinacia oleracea
AAC64126.1	AF091808	Anemia phyllitidis	CAA46554.1	X65604	Hordeum vulgare
CAA33871.1	X15862	Oryza sativa	BAA34675.1	AB011670	Triticum aestivum
AAA33940.1	J01297	Glycine max	SEQ ID NO. 554		
BAA25911.1	AB013098	Nannochloris bacillaris	AAF69017.1	AF261654	Dianthus caryophyllus
AAD48335.1	AF090969	Selaginella apoda	CAC09582.1	AJ298994	Fagus sylvatica
AAD48334.1	AF090968	Selaginella apoda	AAG00419.1	AF247568	Nicotiana tabacum
CAA39276.1	X55746	Solanum tuberosum	SEQ ID NO. 555		
SEQ ID NO. 553			AAF20002.1	AF213936	Prunus dulcis
AAF67262.1	AF165186	Nicotiana tabacum	AAC32034.1	AF023472	Hordeum vulgare
CAA04261.2	AJ000728	Lycopersicon esculentum	AAD01600.1	AF016713	Lycopersicon esculentum
AAC83393.1	U83625	Zea mays	AAF07875.1	AF140606	Oryza sativa
BAB32405.1	AB055514	Nicotiana tabacum	AAD16016.1	AF080545	Nepenthes alata
CAC24705.1	AJ302651	Nicotiana tabacum	CAC07206.1	AJ278966	Brassica napus
AAG40578.1	AF216314	Oryza sativa	AAB69642.1	AF000392	Lotus japonicus
BAA06731.1	D31964	Nicotiana tabacum	CAA93316.1	Z69370	Cucumis sativus
AAG53979.1	AF325168	Nicotiana tabacum	BAB19760.1	AB052788	Glycine max
CAA08758.1	AJ009609	Brassica napus	BAB19757.1	AB052785	Glycine max
CAA08757.1	AJ009608	Brassica napus	BAB19756.1	AB052784	Glycine max
BAA05648.1	D26601	Nicotiana tabacum	AAD42860.1	AF154930	Prunus dulcis
AAF34436.1	AF172282	Oryza sativa	SEQ ID NO. 556		
CAA08995.1	AJ010091	Brassica napus	BAA20848.1	AB004932	Vigna radiata
CAA08997.1	AJ010093	Brassica napus			
CAA71142.1	Y10036	Cucumis sativus			

CAA48297.1	X68215	Pisum sativum	SEQ ID NO. 561	Oryza sativa
CAA48298.1	X68216	Pisum sativum	CAA65456.2	X96681
BAA20849.1	AB004933	Vigna radiata	BAA05622.1	D26573
AAA33945.1	J03919	Glycine max	BAA05625.1	D26576
AAA33944.1	J03920	Glycine max	BAA21017.1	D26578
BAA20847.1	AB004931	Vigna radiata	BAA05624.1	D26575
CAA48300.1	X68218	Pisum sativum	BAA05623.1	D26574
CAA48299.1	X68217	Pisum sativum		
AAD50278.1	AF169830	Glycine max		
SEQ ID NO. 558				
CAA11857.1	AJ224160	Brassica napus	AAA33134.1	M92660
CAA60621.1	X87143	Helianthus annuus	AAA50160.1	L23875
AAD01240.1	AF005096	Ricinus communis	AAA33408.1	M92094
AAG43277.1	AF133728	Borago officinalis	AAB46610.1	L25334
AAD01410.1	AF007561	Borago officinalis	CAA43779.1	X61577
AAC49700.1	U79010	Borago officinalis	AAC50015.1	AF034210
AAD10250.1	AF031194	Triticum aestivum	AAC50014.1	AF034210
CAB94992.1	AJ250734	Ceratodon purpureus	BAA03504.1	D14673
CAB94993.1	AJ250735	Ceratodon purpureus	CAA45023.1	X63429
CAA11033.1	AJ222981	Physcomitrella patens	BAA04992.1	D25322
CAA11032.1	AJ222980	Physcomitrella patens	CAA63894.1	X94184
SEQ ID NO. 559				
AAC39333.1	AF030052	Oryza sativa subsp. japonica	AAA33942.1	L09702
AAD39534.2	AF150630	Gossypium hirsutum	CAA42430.1	X59761
SEQ ID NO. 560				
AAD01600.1	AF016713	Lycopersicon esculentum	AAC12674.1	AF029898
AAC32034.1	AF023472	Hordeum vulgare	AAB26677.2	S60967
CAC07206.1	AJ278966	Brassica napus	BAA08106.1	D45076
AAF20002.1	AF213936	Prunus dulcis	AAB46611.1	L25335
AAF07875.1	AF140606	Oryza sativa	AAB68396.1	U89494
CAA93316.1	Z69370	Cucumis sativus	CAA45022.1	X63428
AAB69642.1	AF000392	Lotus japonicus	CAA04697.1	AJ001360
BAB19757.1	AB052785	Glycine max	CAA45024.1	X63430
BAB19756.1	AB052784	Glycine max	BAA04993.1	D25323
BAB19760.1	AB052788	Glycine max	AAA98603.1	I40579
AAD16016.1	AF080545	Nepenthes alata	BAA23815.1	D67043
AAD42860.1	AF154930	Prunus dulcis	BAA23814.1	D67042
SEQ ID NO. 564				
AAF37732.1	AF052221	Iolium perenne		
BAA08366.2	D49367	Lithospermum erythrorhizon		
BAA08365.1	D49366	Lithospermum erythrorhizon		
CAC36095.1	X69955	Glycine max		
AAF91308.1	AF239685	Rubus idaeus		



AAE91309.1	AF239686	Rubus idaeus	AAA64913.1	U23787	Sorghum bicolor
AAE18638.1	U50846	Nicotiana tabacum	AAE74000.2	AF144507	Pseudotsuga menziesii
BAA07828.1	D43773	Nicotiana tabacum	AAE74021.2	AF144528	Pseudolarix amabilis
AAC39366.1	AF008184	Populus x generosa	SEQ ID NO. 565		
AAC24504.1	AF041050	Populus tremuloides	AAC32149.1	AF051249	Picea mariana
AAG43823.1	AF212317	Capsicum annuum	AAE43837.1	AF166114	Chloroplast Mesostigma vir
AAC24503.1	AF041049	Populus tremuloides	AAC72192.1	AF069908	Zea mays
AAE18637.1	U50845	Nicotiana tabacum	AAC72193.1	AF069909	Zea mays
AAA33842.1	M62755	Solanum tuberosum	AAC72194.1	AF069910	Zea mays
AAD40664.1	AF150686	Solanum tuberosum	AAB01223.1	U56697	Pisum sativum
AAE37733.1	AF052222	Lolium perenne	AAD22077.1	AF124755	Pinus banksiana
AAE37734.1	AF052223	Lolium perenne	AAD38941.1	AF143812	Lycopersicon esculentum
AAE91310.1	AF239687	Rubus idaeus	AAD56390.2	AF182286	Artemisia annua
AAC39365.1	AF008183	Populus x generosa	SEQ ID NO. 566		
CAA31696.1	X13324	Petroselinum crispum	BAA02018.1	D11465	Spinacia oleracea
CAA31697.1	X13325	Petroselinum crispum	CAA86071.1	Z37990	Pisum sativum
CAA36850.1	X52623	Oryza sativa	AAE91407.1	AF271362	Lolium perenne
AAB42382.1	U39404	Pinus taeda	AAC25999.1	AF072289	Mesembryanthemum crystallinum
AAB42383.1	U39405	Pinus taeda	AAE65509.1	AF108881	Capsicum annuum
AAA92669.1	U12013	Pinus taeda	AAE67996.1	U72142	Helianthus annuus
AAA92668.1	U12012	Pinus taeda	BAA01510.1	D10659	Spinacia oleracea
AAD40665.1	AF150687	Solanum tuberosum	CAA50511.1	X71388	Pisum sativum
AAE73997.2	AF144504	Picea smithiana	BAA03798.1	D16292	Oryza sativa
AAE73998.2	AF144505	Cathaya argyrophylla	AAE19005.1	U10283	Flaveria bidentis
AAE73995.2	AF144502	Pinus armandii	AAB40609.1	U55019	Saccharum officinarum
AAE73994.2	AF144501	Pinus armandii	AAE19004.1	U10282	Flaveria bidentis
AAE73996.2	AF144503	Pinus armandii	AAA93030.1	U50150	Glycine max
CAA49575.1	X69954	Glycine max	CAA53073.1	X75324	Lycopersicon esculentum
AAE74019.2	AF144526	Tsuga canadensis	AAE93537.1	AF191098	Pisum sativum
AAE74004.2	AF144511	Pseudotsuga sinensis	BAA96460.1	AB029400	Brassica rapa
AAE74016.2	AF144523	Nothotsuga longibracteata	SEQ ID NO. 567		
AAE74022.2	AF144529	Cedrus atlantica	AAE60293.1	AF233745	Lycopersicon esculentum
AAE74018.2	AF144525	Tsuga canadensis	SEQ ID NO. 568		
AAE74002.2	AF144509	Pseudotsuga sinensis	AAC28436.1	AF195029	Glycine max
AAE74001.2	AF144508	Pseudotsuga menziesii	AAC28435.1	AF195028	Glycine max
AAE73993.2	AF144500	Pinus banksiana	AAD46188.1	AF156691	Nicotiana plumbaginifolia
AAE73992.1	AF144499	Pinus banksiana	CAA68234.1	X99972	Brassica oleracea
CAB97359.1	AJ278455	Juglans nigra			
AAE74003.2	AF144510	Pseudotsuga sinensis			
AAE73999.2	AF144506	Pseudotsuga menziesii			
AAE74007.2	AF144514	Abies firma			

AAA34094.1	M80489	Nicotiana plumbaginifolia	AAA34096.1	M80492	Nicotiana plumbaginifolia
AAF98344.1	AF275745	Lycopersicon esculentum	AAG01028.1	AF289025	Cucumis sativus
AAD55399.1	AF179442	Lycopersicon esculentum	SEQ ID NO. 569		
AAA34052.1	M27888	Nicotiana plumbaginifolia	AAC49186.1	U37088	Simmondsia chinensis
CAA54046.1	X76536	Solanum tuberosum	AAG28600.1	AF247134	Limnanthes douglasii
AAA34098.1	M80490	Nicotiana plumbaginifolia	ACG34858.1	AF082033	Hemerocallis hybrid cultiv
AB411898.1	U84891	Mesembryanthemum crystallinum	AB721178.1	AF009563	Brassica napus
CAA52107.1	X73901	Dunaliella bioculata	AAA96054.1	U50771	Brassica napus
BAA06629.1	D31843	Oryza sativa	CAA71898.1	Y11007	Brassica juncea
AB60276.1	U09989	Zea mays	AAK11266.1	AF333040	Dunaliella salina
CAC29435.1	AJ310523	Vicia faba	CAC17746.1	AJ291728	Zea mays
AAA34173.1	M60166	Lycopersicon esculentum	AAC25109.1	AF054497	Brassica napus
CAB69824.1	AJ271439	Prunus persica	AAC25110.1	AF054498	Brassica napus
AAD46187.1	AF156683	Nicotiana plumbaginifolia	AAC25111.1	AF054499	Brassica rapa
AAB49042.1	U54690	Dunaliella acidophila	AAC25112.1	AF054500	Brassica oleracea
CRA59799.1	X85804	Phaseolus vulgaris	SEQ ID NO. 571		
AB84202.2	AF029256	Kosteletzkya virginica	AAD41126.1	AF159061	Oryza sativa subsp. indica
CAA47275.1	X66737	Nicotiana plumbaginifolia	BAA92697.1	AB039916	Vicia faba
AAB35314.2	S79323	Vicia faba	BAA92698.1	AB039917	Vicia faba
BAA37150.1	AB022442	Vicia faba	CAC11129.1	AJ298829	Fagus sylvatica
CAC29436.1	AJ310524	Vicia faba	AAC72838.1	AF097182	Oryza sativa
AAK31799.1	AY029190	Lilium longiflorum	AAD09953.1	AF107464	Hevea brasiliensis
CAA54045.1	X76535	Solanum tuberosum	CAB81126.1	Z26041	Helianthus annuus
BAA01058.1	D10207	Oryza sativa	AAA91806.1	U49113	Oryza sativa
AAB17186.1	U72148	Lycopersicon esculentum	CAB07806.1	Z93771	Nicotiana tabacum
CAB85495.1	AJ132892	Medicago truncatula	AAD48068.1	AF173881	Oryza sativa subsp. indica
CAB85494.1	AJ132891	Medicago truncatula	CAB46506.1	AJ007496	Nicotiana tabacum
CAA59800.1	X85805	Zea mays	AAD22116.1	AF134552	Oryza sativa subsp. indica
BAA08134.1	D45189	Zostera marina	BAA92699.1	AB039918	Vicia faba
CAB69823.1	AJ271438	Prunus persica	CAA49849.1	X70399	Medicago sativa
AAD46186.1	AF156679	Nicotiana plumbaginifolia	CAA40687.1	X57439	Brassica napus
AAD31896.1	AF145478	Mesembryanthemum crystallinum	CAB07807.1	Z93772	Nicotiana tabacum
BAA90510.2	AP001111	Oryza sativa	CAA07471.1	AJ007333	Catharanthus roseus
AAD11617.1	AF050495	Lycopersicon esculentum	AAF66353.1	AF283668	Oryza sativa subsp. indica
AAD11618.1	AF050496	Lycopersicon esculentum	CAA81395.1	Z26654	Acetabularia cliftonii
AAA34138.1	M96324	Lycopersicon esculentum	CAA87385.1	Z47076	Malus x domestica
CAA63790.1	X93592	Dunaliella bioculata	CRA05491.1	AJ002485	Medicago sativa
AAA81348.1	U38965	Vicia faba	CAA82263.1	Z28627	Acetabularia cliftonii
AAK32118.1	AF308816	Hordeum vulgare	CAA07470.1	AJ007332	Catharanthus roseus
AAK32119.1	AF308817	Hordeum vulgare			
AAF97591.1	AF263917	Lycopersicon esculentum			

CAA88254.1	Z48221	Phaseolus vulgaris	AAF29975.1	AF188062	Lactuca sativa
AAD38896.1	AF156101	Chlamydomonas reinhardtii	AAD41765.1	AF111842	Hevea brasiliensis
BAA92244.1	AB038648	Vicia faba	AAD41766.1	AF111843	Hevea brasiliensis
AAA33545.1	M60215	Zea mays	AAC32209.1	AF082326	Haematococcus pluvialis
CAA56766.1	X80788	Medicago sativa subsp. x varia	AAC32208.1	AF082325	Haematococcus pluvialis
CAB07803.1	Z93768	Nicotiana tabacum	BAA33978.1	AB019034	Haematococcus pluvialis
CAA05493.1	AJ002487	Medicago sativa	CAA70850.1	Y09634	Nicotiana tabacum
CAB07804.1	Z93769	Nicotiana tabacum	AAF91499.1	AF227951	Daucus carota
CRA82264.1	Z28632	Acetabularia Cliftonii	AAC322601.1	AF082869	Chlamydomonas reinhardtii
CAB07805.1	Z93770	Nicotiana tabacum	SEQ ID NO. 573		
CAA45119.1	X63558	Brassica oleracea	BAA05079.1	D26086	Petunia x hybrida
CAA05492.1	AJ002486	Medicago sativa	AAD26942.1	AF119050	Datisca glomerata
AAA74625.1	U31773	Oryza sativa	AAC06243.1	AF053077	Nicotiana tabacum
CAA05494.1	AJ002488	Medicago sativa	BAA05077.1	D26084	Petunia x hybrida
CAA40686.1	X57438	Brassica napus	BAA05076.1	D26083	Petunia x hybrida
CAA87386.1	Z47077	Malus x domestica	BAA05078.1	D26085	Petunia x hybrida
CAA87387.1	Z47078	Malus x domestica	AAK01713.1	AF332876	Oryza sativa
BAA92334.1	AB038787	Vicia faba	AAB53260.1	U76554	Brassica rapa
CAC11128.1	AJ298828	Fagus sylvatica	AAB53261.1	U76555	Brassica rapa
BAA92335.1	AB038788	Vicia faba	BAA96070.1	AB035132	Petunia x hybrida
CAC09574.1	AJ298986	Fagus sylvatica	BAA21919.1	AB006597	Petunia x hybrida
BAA92337.1	AB038790	Vicia faba	BAA96071.1	AB035133	Petunia x hybrida
BAA92336.1	AB038789	Vicia faba	BAA21927.1	AB006605	Petunia x hybrida
BAA92338.1	AB038791	Vicia faba	BAA19112.1	AB000453	Petunia x hybrida
AAG29592.1	AF196285	Medicago sativa subsp. x varia	BAA21928.1	AB006606	Petunia x hybrida
SEQ ID NO. 572			BAA21922.1	AB006600	Petunia x hybrida
AAF36996.1	AF236092	Brassica oleracea var. botrytis	BAA19114.1	AB000455	Petunia x hybrida
AAF29978.1	AF188065	Oryza sativa	BAA21920.1	AB006598	Petunia x hybrida
AB67743.1	U48963	Clarkia breweri	BAA21921.1	AB006599	Petunia x hybrida
BAB40974.1	AB049816	Nicotiana tabacum	BAA19110.1	AB000451	Petunia x hybrida
AAF29974.1	AF188061	Adonis palaeostina	BAA21926.1	AB006604	Petunia x hybrida
AAF29973.1	AF188060	Adonis palaeostina	BAA21925.1	AB006603	Petunia x hybrida
CAA57947.1	X82627	Clarkia breweri	BAA19111.1	AB000452	Petunia x hybrida
AAF29976.1	AF188063	Lactuca sativa	BAA21923.1	AB006601	Petunia x hybrida
BAB40973.1	AB049815	Nicotiana tabacum	BAA21924.1	AB006602	Petunia x hybrida
AAF29977.1	AF188064	Tagetes erecta	BAA19113.1	AB000454	Petunia x hybrida
AAG10423.1	AF251011	Tagetes erecta	BAA19926.1	AB000456	Petunia x hybrida
AAB94132.1	AF031079	Camptotheca acuminata	SEQ ID NO. 574		
AAB94133.1	AF031080	Camptotheca acuminata	AAC32146.1	AF051246	Picea mariana
AAB67742.1	U48962	Clarkia xantiana			

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AAG43823.1	AF212317	Capsicum annuum	AAB68661.1	U90214	Nicotiana tabacum
AAD40664.1	AF150686	Solanum tuberosum	AAD34570.1	AF143442	Lycopersicon esculentum
AAF91310.1	AF239687	Rubus idaeus	BAA87835.1	AP000815	Oryza sativa
BAA07828.1	D43773	Nicotiana tabacum	AAB31249.1	S73826	Solanum tuberosum
AAC39365.1	AF008183	Populus x generosa	AAB31250.2	S73827	Solanum tuberosum
AAC24503.1	AF041049	Populus tremuloides	CAA57894.1	X82544	Solanum tuberosum
CAA31696.1	X13324	Petroselinum crispum	AAB31251.2	S73828	Solanum tuberosum
CAA31697.1	X13325	Petroselinum crispum	BAA06486.1	D30809	Triticum aestivum
AAF37733.1	AF052222	Lolium perenne	AAC24123.1	AF067187	Cichorium intybus
AAF37734.1	AF052223	Lolium perenne	BAA06487.1	D30810	Triticum aestivum
AAB42383.1	U39405	Pinus taeda	BAA02303.2	D12919	Triticum aestivum
AAB42382.1	U39404	Pinus taeda			
AAA92669.1	U12013	Pinus taeda	SEQ ID NO. 580		
AAA92668.1	U12012	Pinus taeda	CAA64152.1	X94375	Pimpinella brachycarpa
AAD40665.1	AF150687	Solanum tuberosum	CAA64221.1	X94449	Pimpinella brachycarpa
AAF73997.2	AF144504	Picea smithiana	CAA64491.1	X95193	Pimpinella brachycarpa
AAF73995.2	AF144502	Pinus armandii	CAA63222.1	X92489	Glycine max
AAF73998.2	AF144505	Cathaya argyrophylla	BAA93463.1	AB028075	Physcomitrella patens
AAF73994.2	AF144501	Pinus armandii	AA74017.1	U30475	Glycine max
AAF73996.2	AF144503	Pinus armandii	BAB18169.1	AB042767	Zinnia elegans
CAA49575.1	X69954	Glycine max	BAA93462.1	AB028074	Physcomitrella patens
AAF74016.2	AF144523	Nothotsuga longibracteata	BAA93464.1	AB028076	Physcomitrella patens
AAF74004.2	AF144511	Pseudotsuga sinensis	BAA93465.1	AB028077	Physcomitrella patens
AAF74022.2	AF144529	Cedrus atlantica	BAA93466.1	AB028078	Physcomitrella patens
AAF74019.2	AF144526	Tsuga canadensis	BAB18171.1	AB042769	Zinnia elegans
AAF74018.2	AF144525	Tsuga canadensis	CAA64417.1	X94947	Lycopersicon esculentum
AAF74001.2	AF144508	Pseudotsuga menziesii	BAA93461.1	AB028073	Physcomitrella patens
AAF74002.2	AF144509	Pseudotsuga sinensis	BAA93468.1	AB028080	Physcomitrella patens
CAB97359.1	AJ278455	Juglans nigra	BAA93467.1	AB028079	Physcomitrella patens
AAF74003.2	AF144510	Pseudotsuga sinensis			
AAF73993.2	AF144500	Pinus banksiana	SEQ ID NO. 581		
AAF73999.2	AF144506	Pseudotsuga menziesii	CAA91162.1	Z54351	Spinacia oleracea
AAF73992.1	AF144499	Pinus banksiana	AAD33936.1	AF144684	Chloroplast Pisum sativum
AAF74007.2	AF144514	Abies firma	AAC05019.1	AF039304	Chloroplast Zea mays
AA64913.1	U23787	Sorghum bicolor	AAB96657.1	AF039305	Chloroplast Zea mays
AAF74000.2	AF144507	Pseudotsuga menziesii			
SEQ ID NO. 578			SEQ ID NO. 582		
BAA02305.2	D12921	Triticum aestivum	AAF16526.1	AF191301	Medicago sativa
AAF06696.1	AF031487	Nicotiana tabacum			
CAA40102.1	X56782	Triticum aestivum	SEQ ID NO. 583		
			BAA92986.1	AF001550	Oryza sativa

AAF19807.1	AAF180356	Brassica oleracea	AAB80919.1	AF020787	Oryza sativa
AAF19403.1	AF203481	Lycopersicon esculentum	SEQ ID NO. 590		
AAF19402.1	AF203480	Lycopersicon esculentum	AAC09422.1	M68929	Mitochondrion Marchantia
BAA05648.1	D26601	Nicotiana tabacum	polymorpha		
CAA73068.1	Y12465	Sorghum bicolor	SEQ ID NO. 603		
BAA34675.1	AB011670	Triticum aestivum	AAD02328.1	AF044573	Brassica oleracea
BAA13440.1	D87707	Ipomoea batatas	AAC49651.1	U68461	Striga asiatica
AAF23900.1	AF194413	Oryza sativa	AAC49652.1	U68462	Striga asiatica
AAF23901.2	AF194414	Oryza sativa	AAF40438.1	AF234528	Avena nuda
AAD17800.1	AF090835	Mesembryanthemum crystallinum	BAA89214.1	AB032361	Mimosa pudica
CAA73067.1	Y12464	Sorghum bicolor	AAC31886.1	AF059484	Gossypium hirsutum
BAA12715.1	D85039	Zea mays	CAA39280.1	X55751	Solanum tuberosum
CAA89202.1	Z49233	Chlamydomonas eugametos	CAA45149.1	X63603	Nicotiana tabacum
AAF21062.1	AF216527	Dunaliella tertiolecta	AAF71265.1	AF246715	Phalaenopsis sp. 'True Lady'
AAB80693.1	U69174	Glycine max	CAA33874.1	X15865	Oryza sativa
CAA39936.1	X56599	Daucus carota	CAA39278.1	X55749	Solanum tuberosum
AAB47181.1	S82324	Zea mays	AAD41039.1	AF112538	Malva pusilla
BAA12691.1	D84507	Zea mays	ANG10041.1	AF288226	Setaria italica
AAG01179.1	AF289237	Zea mays	AAD03692.1	AF172094	Picea rubens
CAA58750.1	X83869	Daucus carota	AA03741.1	AF111812	Brassica napus
BAA12692.1	D84508	Zea mays	CAA47899.1	X67666	Pisum sativum
CAA57157.1	X81394	Oryza sativa	AAF82805.1	AF282624	Helianthus annuus
AAD23582.1	AF128443	Glycine max	CAA48609.1	X68649	Pisum sativum
BAA19553.1	D64036	Oryza sativa	AAF31643.1	AF143208	Vigna radiata
CAA65244.1	X95997	Solanum tuberosum	CAA39281.1	X55752	Solanum tuberosum
CAA07481.1	AJ007366	Zea mays	CAA34356.1	X16280	Oryza sativa
AAG46110.1	AC073166	Oryza sativa	CAA55923.1	X79378	Sorghum bicolor
CAA65500.1	X96723	Medicago sativa	AAF71264.1	AF246714	Phalaenopsis sp. 'True Lady'
AAA69507.1	U28376	Zea mays	AAB38512.1	U81047	Pisum sativum
AAD28192.2	AF115406	Solanum tuberosum	AAB38511.1	U81046	Pisum sativum
BAA22410.1	D38452	Zea mays	AAB18642.1	U76191	Pisum sativum
CAA71142.1	Y10036	Cucumis sativus	AAB18641.1	U76190	Pisum sativum
AAG36872.1	AF239819	Zea mays	CAA62028.1	X90378	Pisum sativum
AAC04324.1	U73937	Nicotiana tabacum	CAA39279.1	X55750	Solanum tuberosum
BAA02698.1	D13436	Oryza sativa	AAC64127.1	AF091809	Anemia phyllitidis
BAA83689.1	AB011968	Oryza sativa	AAC16054.1	AF061019	Coleochaete scutata
CAA72362.1	Y11649	Zea mays	AAB38514.1	U81049	Pisum sativum
CAA43659.1	X61387	Zea mays	AAB18644.1	U76193	Pisum sativum
BAA05649.1	D26602	Nicotiana tabacum	AAC16055.1	AF061020	Mesostigma viride
SEQ ID NO. 584					

AAC64128.1	AF091810	Anemia phyllitidis	CAA44820.1	X63106	Nicotiana tabacum
AAA33433.1	J01238	Zea mays	BAA34919.1	AB012716	Salix gilgiana
AAC05272.1	AF049106	Glycine max	AAB65162.1	AF002667	Solanum commersonii
CAA33873.1	X15864	Oryza sativa	CAA47345.1	X66874	Phaseolus vulgaris
AAF87302.1	AF281323	Magnolia denudata	AAB91473.1	AF035458	Spinacia oleracea
BAA09450.1	D50839	Chlamydomonas reinhardtii	AAB96660.1	AF039084	Spinacia oleracea
BAA09449.1	D50838	Chlamydomonas reinhardtii	AAB91472.1	AF035457	Spinacia oleracea
AAC16053.1	AF061018	Scherffelia dubia	SEQ ID NO. 607		
AAA33940.1	J01297	Glycine max	AAB05641.1	U41385	Ricinus communis
CAA23728.1	V00450	Glycine max	AAD28260.1	AF131223	Datisca glomerata
AAA34243.1	M33963	Volvox carteri	CAA77575.1	Z11499	Medicago sativa
BAA25911.1	AB013098	Nannochloris bacillaris	CAC21228.1	AJ277377	Triticum turgidum subsp. d
AAD48335.1	AF090969	Selaginella apoda	CAC21230.1	AJ277379	Triticum turgidum subsp. d
AAD48336.1	AF090970	Cosmarium botrytis	AAA19660.1	U11496	Triticum aestivum
AAC64129.1	AF091811	Psilotum nudum	BAB18780.1	AB047268	Cucumis sativus
CAA39276.1	X55746	Solanum tuberosum	CAC21229.1	AJ277378	Triticum turgidum subsp. durum
SEQ ID NO. 606			CAC21231.1	AJ277380	Triticum turgidum subsp. durum
AAB88009.1	AF035414	Brassica napus	BAA92322.1	AB039278	Oryza sativa
AAB88134.1	AF034618	Spinacia oleracea	AAD55566.1	AF110784	Volvox carteri f. nagariensis
CAA47948.1	X67711	Oryza sativa	AAD02069.1	AF036939	Chlamydomonas reinhardtii
CAB72129.1	AJ249330	Cucumis sativus	AAC49896.1	AF027727	Chlamydomonas reinhardtii
CAB72130.1	AJ249331	Cucumis sativus	CAA72092.1	Y11209	Nicotiana tabacum
CAA37971.1	X54030	Lycopersicon esculentum	SEQ ID NO. 608		
AAF34134.1	AF161180	Malus x domestica	AAB72047.1	AF006489	Gossypium hirsutum
AAB88133.1	AF034617	Spinacia oleracea	CAA05979.1	AJ003197	Lupinus albus
AAB88132.1	AF034616	Spinacia oleracea	CAA44054.1	X62123	Solanum tuberosum
AAB97316.1	AF033852	Spinacia oleracea	AAB49700.1	U89839	Lycopersicon esculentum
AAB42159.1	L41253	Lycopersicon esculentum	CAA40782.1	X57557	Solanum tuberosum
CAA42685.1	X60088	Daucus carota	BAA02161.1	D12637	Oryza sativa
CAA30018.1	X06932	Petunia x hybrida	CAA41812.1	X59086	Zea mays
CAA43711.1	X61491	Spinacia oleracea	CAA40781.1	X57556	Zea mays
CAA37970.1	X54029	Lycopersicon esculentum	CAA33743.1	X15712	Zea mays
AAB99745.1	AF005993	Triticum aestivum	CAA33742.1	X15711	Zea mays
CAA67867.1	X99515	Pisum sativum	CAA65119.1	X95863	Triticum turgidum
CAA44620.1	X62799	Glycine max	CAA26600.1	X02842	Zea mays
AAB00730.1	M76725	Chlamydomonas reinhardtii	CAA65120.1	X95864	Triticum turgidum
AAA34139.1	L08830	Lycopersicon esculentum	CAA46311.1	X65194	Chlamydomonas reinhardtii
CAB72128.1	AJ249329	Cucumis sativus	AAA33027.1	M76669	Chlorella kessleri
AAA21808.1	L23551	Spinacia oleracea	AAB72048.1	AF006490	Gossypium hirsutum
AAB86942.1	AF031241	Glycine max			

BAA08104.1	D45074	Panicum miliaceum	AAF61392.1	AF133894	Persea americana
BAA08103.1	D45073	Panicum miliaceum	CAB38119.1	AJ010296	Zea mays
BAA08105.1	D45075	Panicum miliaceum	CAB38118.1	AJ010295	Zea mays
SEQ ID NO. 609			AAG34814.1	AF243379	Glycine max
CAA29056.1	X05512	Spinacia oleracea	AAG34812.1	AF243377	Glycine max
AAA20823.1	M87435	Zea mays	CAA09190.1	AJ010451	Alopecurus myosuroides
AAB81994.1	AF026400	Onobrychis viciifolia	CAA09193.1	AJ010454	Alopecurus myosuroides
BAA96362.1	AB043962	Bruguiera gymnorrhiza	AAG34811.1	AF243376	Glycine max
AAB40980.1	U22330	Volvox carteri	CAA09192.1	AJ010453	Alopecurus myosuroides
SEQ ID NO. 610			CAA09191.1	AJ010452	Alopecurus myosuroides
CAA46507.1	X65540	Plastid Triticum aestivum	AAD56395.1	AF184059	Triticum aestivum
CAA52439.1	X74418	Chlamydomonas reinhardtii	CAA68993.1	Y07721	Petunia x hybrida
BAA94305.1	AB035313	Chlamydomonas sp. W80	CAA39487.1	X56012	Triticum aestivum
CAA74960.1	Y14608	Chlamydomonas reinhardtii	AAC64007.1	AF062403	Oryza sativa
CAA61409.1	X89006	Saccharum hybrid cultivar H65-7052	AAG34817.1	AF244674	Zea mays
BAA25422.1	AB007193	Oryza sativa	AAA20585.1	U12679	Zea mays
AAF23509.1	AF218845	Porteresia coarctata	CAA56047.1	X79515	Zea mays
AAG31813.1	AF317553	Beta vulgaris	AAA33470.1	M16901	Zea mays
AAA32915.1	M80597	Beta vulgaris	AAA33469.1	M16902	Zea mays
AAA82750.1	U20179	Brassica napus	AAG34821.1	AF244678	Zea mays
AAD12243.1	AF081796	Brassica napus	AAG34820.1	AF244677	Zea mays
CAA48719.1	X68826	Pisum sativum	CAA39480.1	X56004	Triticum aestivum
AAD25541.1	AF134051	Solanum tuberosum	AAG34823.1	AF244680	Zea mays
CAA43860.1	X61690	Spinacia oleracea	AAG34818.1	AF244675	Zea mays
CAB39759.1	AJ133598	Plastid Pisum sativum	AAG34822.1	AF244679	Zea mays
CAA37908.1	X53957	Triticum aestivum	AAG34816.1	AF244673	Zea mays
BAA25423.1	AB007194	Oryza sativa	CAA05354.1	AJ002380	Oryza sativa
CAB46084.1	AJ243392	Pisum sativum	CAB66333.1	AJ279691	Betula pendula
AAD28755.1	AF130251	Musa acuminata	CAA05355.1	AJ002381	Oryza sativa
CAA54265.1	X76946	Solanum tuberosum	SEQ ID NO. 612		
SEQ ID NO. 611			AAC19396.1	AF069318	Mesembryanthemum crystallinum
AAB65163.1	AF002692	Solanum commersonii	AAD28640.1	AF068686	Glycine max
CAA55039.1	X78203	Hyoscyamus muticus	CAA07683.1	AJ007789	Nicotiana tabacum
BAA01394.1	D10524	Nicotiana tabacum	BAA92518.1	AP001383	Oryza sativa
AAA33930.1	M84968	Silene vulgaris	BAA90346.1	AP001080	Oryza sativa
CAA96431.1	Z71749	Nicotiana plumbaginifolia	AAC12646.1	AF055296	Zantedeschia aethiopica
AAA33931.1	M84969	Silene vulgaris	SEQ ID NO. 615		
			CAB56544.1	X51608	Triticum aestivum
			CAA41020.1	X57952	Triticum aestivum



CAA72118.1	Y11248	Pisum sativum	AAB17070.1	U54770	Lycopersicon esculentum
CAA30499.1	X07654	Spinacia oleracea	APK00946.1	AF318211	Taxus cuspidata
AAA34036.1	M21338	Spinacia oleracea	AAG41777.1	AF212991	Cucurbita maxima
AAA33034.1	M73707	Mesembryanthemum crystallinum	AAK11616.1	AF326277	Hordeum vulgare
AAA33090.1	M36123	Chlamydomonas reinhardtii	AAF20011.1	AF216313	Helianthus annuus
AAF36402.1	AF228914	Chlamydomonas reinhardtii	CAA50647.1	X71656	Solanum melongena
AAD55057.1	AF173671	Beta vulgaris	AAE27282.1	AF122821	Capsicum annuum
			AAB94593.1	AF022464	Glycine max
			BAA13076.1	D86351	Glycine max
SEQ ID NO. 616			AAA19701.1	I24438	Thlaspi arvense
CAA05365.1	AJ002391	Solanum tuberosum	AAC48987.1	U09610	Berberis stolonifera
AAB61215.1	AF002226	Nicotiana tabacum	BAB12433.1	AB025030	Coptis japonica
AAC50019.1	U39747	Ipomoea nil	CAB56503.1	AJ238612	Catharanthus roseus
CAA41220.1	X58282	Zea mays	CAA50648.1	X71657	Solanum melongena
BAA19156.1	AB000637	Canavalia gladiata	AAC39452.1	AF014800	Eschscholzia californica
AAC78104.1	AF093632	Oryza sativa	AAD38930.1	AF135485	Glycine max
CAA77641.1	Z11540	Triticum aestivum	AAD44150.1	AF124815	Mentha spicata
CAA90679.1	Z50799	Hordeum vulgare	AAC39453.1	AF014801	Eschscholzia californica
CAB44297.1	AJ006708	Zea mays	BAA12159.1	D83968	Glycine max
			AAF05621.1	AF191772	Papaver somniferum
SEQ ID NO. 617			AAB94587.1	AF022458	Glycine max
AAA91049.1	I31937	Brassica rapa	CAA04116.1	AJ000477	Helianthus tuberosus
AAC97524.1	U12150	Glycine max	CAA04117.1	AJ000478	Helianthus tuberosus
AAB17095.1	U72942	Oryza sativa	CAB43505.1	AJ239051	Cicer arietinum
BAA85411.1	AF000615	Oryza sativa	BAA93632.1	AB024931	Lotus japonicus
AAC00503.1	AF044059	Oryza sativa	BAA76380.1	AB023636	Glycyrrhiza echinata
AAG17880.1	AF293407	Phaseolus coccineus			
AAG38520.1	AF283535	Citrus x paradisi			
CAA78359.1	Z13956	Glycine max			
			SEQ ID NO. 621		
SEQ ID NO. 618			AAB01376.1	M96549	Lycopersicon esculentum
AAA91049.1	I31937	Brassica rapa	AAA33748.1	M99431	Ipomoea nil
AAC97524.1	U12150	Glycine max	CAA77978.1	Z11920	Oryza sativa
AAC00503.1	AF044059	Oryza sativa	AAD30456.1	AF123259	Lycopersicon esculentum
AAB17095.1	U72942	Oryza sativa	AAD11549.1	U55859	Triticum aestivum
BAA85411.1	AF000615	Oryza sativa	AAB26482.2	S59780	Zea mays
AAG17880.1	AF293407	Phaseolus coccineus	AAA16785.1	I14594	Catharanthus roseus
AAG38520.1	AF283535	Citrus x paradisi	BAA90487.1	AB037681	Oryza sativa
CAA78359.1	Z13956	Glycine max	CAA44877.1	X63195	Nicotiana tabacum
			CAA82945.1	Z30243	Secale cereale
SEQ ID NO. 619			AAF31705.1	AF221856	Euphorbia esula
AAF89209.1	AF279252	Vigna radiata	AAC32131.1	AF051230	Picea mariana
			AAD11550.1	U55860	Triticum aestivum

CAA78738.1	Z15018	Oryza sativa	AAA99439.1	L24547	Volvox carteri
SEQ ID NO. 622			CAA31334.1	X12855	Volvox carteri
AAA19708.1	L10634	Zea mays	AAA33804.1	M33371	Polytomella agilis
AAD10489.1	U76746	Triticum aestivum	AAA33803.1	M33373	Polytomella agilis
AAD20178.1	AF059287	Eleusine indica	AAB03892.1	M33372	Polytomella agilis
AAK09229.1	AC084320	Oryza sativa	AAB60936.1	AF001379	Chlamydomonas incerta
BAA02505.1	D13224	Oryza sativa	CAA38614.1	X54845	Pisum sativum
BAA06382.1	D30717	Oryza sativa	AAD10493.1	U76897	Triticum aestivum
AAD20180.1	AF059289	Oryza sativa	BAA82639.1	D63138	Zinnia elegans
CAA55912.1	X79367	Eleusine indica	CAA38615.1	X54846	Pisum sativum
CAA38613.1	X54844	Oryza sativa	SEQ ID NO. 624		
AAD10490.1	U76895	Pisum sativum	BAA78764.1	AB023482	Oryza sativa
CAA48929.1	X69185	Triticum aestivum	AAF43496.1	AF131222	Lophopyrum elongatum
BAA82637.1	D63136	Anemia phyllitidis	AAK11674.1	AF339747	Lophopyrum elongatum
CAA49736.1	X70184	Zinnia elegans	AAG16628.1	AY007545	Brassica napus
AAA20186.1	L10633	Lupinus albus	BAA94509.1	AB041503	Populus nigra
BAA06381.1	D30716	Zea mays	BAA94510.1	AB041504	Populus nigra
CAA55022.1	X78143	Oryza sativa	AAK21965.1	AY028699	Brassica napus
CAA70891.1	Y09741	Oryza sativa	CAB51834.1	U00069	Oryza sativa
AAB03267.1	U47660	Hordeum vulgare	AAG03090.1	AC073405	Oryza sativa
AAD10488.1	U76745	Lupinus albus	AAF91337.1	AF249318	Oryza sativa
AAA34010.1	M21297	Triticum aestivum	AAF91336.1	AF249317	Glycine max
BAA82638.1	D63137	Glycine max	AAC61805.1	U28007	Glycine max
AAB64308.1	U63927	Zinnia elegans	AAF76307.1	AF220602	Lycopersicon esculentum
CAA52720.1	X74656	Daucus carota	AAB47424.1	U59317	Lycopersicon pimpinellifolium
AAD20181.1	AF059290	Zea mays	AAC27894.1	AF023164	Lycopersicon pimpinellifolium
AAD20179.1	AF059288	Eleusine indica	AAG35377.1	AF290411	Zea mays
AAD10487.1	U76744	Eleusine indica	AAB09771.1	U67422	Oryza meyeriana
CAA67056.1	X98406	Triticum aestivum	BAA94529.2	AP001800	Oryza sativa
AAD10492.1	U76896	Cicer arletinum	AAC27895.1	AF023165	Zea mays
CAA52718.1	X74654	Triticum aestivum	CAA73134.1	Y12531	Brassica oleracea
CAA37060.1	X52878	Zea mays	BAA94516.1	AP001800	Oryza sativa
AAA19709.1	L10636	Zea mays	AAK11566.1	AF318490	Lycopersicon hirsutum
CAA83853.1	Z33402	Zea mays	AAF34428.1	AF172282	Oryza sativa
CAA83847.1	Z33382	Solanum tuberosum	CAA97692.1	Z73295	Catharanthus roseus
CAA37061.1	X52879	Solanum tuberosum	BAA94517.1	AP001800	Oryza sativa
AAA19707.1	L10635	Zea mays	SEQ ID NO. 626		
CAA52719.1	X74655	Zea mays	AAD10241.1	AF020716	Triticum aestivum
AAA33102.1	K03281	Zea mays	CAB06653.1	Z85984	Oryza sativa
AAA33101.1	M10064	Chlamydomonas reinhardtii			
		Chlamydomonas reinhardtii			

AAG48835.1	AC084218	Oryza sativa	CAA39936.1	X56599	Daucus carota
AAD10242.1	AF020717	Triticum aestivum	CAA08995.1	AJ010091	Brassica napus
SEQ ID NO. 628			BAA05649.1	D26602	Nicotiana tabacum
BAA90375.1	AP001081	Oryza sativa	AAF19403.1	AF203481	Lycopersicon esculentum
BAB03361.1	AP002486	Oryza sativa	AAC25423.1	AF072908	Nicotiana tabacum
CAG62901.1	X91787	Lupinus luteus	AAF19402.1	AF203480	Lycopersicon esculentum
SEQ ID NO. 629			CAA65244.1	X95997	Solanum tuberosum
BAA96875.1	AB045121	Oryza sativa	CAA57898.1	X82548	Hordeum vulgare
BAA78746.1	AB023482	Oryza sativa	AAF19401.1	AF203479	Glycine max
AAG43550.1	AF211532	Nicotiana tabacum	AAD23582.1	AF128443	Glycine max
BAA90357.1	AP001080	Oryza sativa	AAF34436.1	AF172282	Oryza sativa
BAA77204.1	AB026262	Cicer arietinum	BAA05648.1	D26601	Nicotiana tabacum
BAA90806.1	AP001168	Oryza sativa	SEQ ID NO. 634		
SEQ ID NO. 630			AAF73075.1	AF268595	Hordeum vulgare
AAD50592.1	AF093752	Triticum aestivum	SEQ ID NO. 635		
AAG22095.1	AF308658	Typha latifolia	CAB85467.1	AJ250316	Brassica juncea
SEQ ID NO. 632			BAA22441.1	D63954	Zea mays
AAF21901.1	AF109392	Brassica napus	BAA11475.1	D79979	Nicotiana tabacum
SEQ ID NO. 633			AAAF70334.1	U25817	Sesamum indicum
CAB82852.1	Z30329	Mesembryanthemum crystallinum	AAAB39387.1	U59477	Perilla frutescens
BAB18105.1	AB042715	Chlamydomonas reinhardtii	CAA07638.1	AJ007739	Solanum tuberosum
BAB18104.1	AB042714	Chlamydomonas reinhardtii	AAF27933.1	AF222989	Capsicum annuum
BAA83689.1	AB011968	Oryza sativa	AAB72241.1	U75745	Petroselinum crispum
BAA83688.1	AB011967	Oryza sativa	AAAG1776.1	L22965	Chloroplast Glycine soja
CAA73067.1	Y12464	Sorghum bicolor	AAF12821.1	AF200717	Vernicia fordii
AAF22219.1	AF141378	Zea mays	AAAB6690.1	U17063	Limnanthes douglasii
BAA96628.1	AP002482	Oryza sativa	AAD13527.1	AF061027	Vernicia fordii
CAA89202.1	Z49233	Chlamydomonas eugametos	BAA22442.1	D84409	Zea mays
CAA73068.1	Y12465	Sorghum bicolor	BAA22440.1	D63953	Zea mays
BAA34675.1	AB011670	Triticum aestivum	BAA07785.2	D43688	Triticum aestivum
AAF06969.1	AF162661	Kalanchoe fedtschenkoi	AAA61774.1	L22963	Chloroplast Brassica napus
AAF06970.1	AF162662	Kalanchoe fedtschenkoi	AAC98967.1	AF047172	Vernicia fordii
BAA90814.1	AP001168	Oryza sativa	CAB45155.1	AJ011004	Vernicia fordii
AAB62693.1	AF004947	Oryza sativa	AAC16443.1	AF020204	Pelargonium x hortorum
AAF21062.1	AF216527	Dunaliella tertiolecta	AAA61775.1	L22962	Brassica napus
CAA71142.1	Y10036	Cucumis sativus	AAA61777.1	L22964	Chloroplast Glycine soja
			AAA32994.1	L01418	Brassica napus
			AAD15744.1	AF047039	Perilla frutescens
			BAA28358.1	D84678	Triticum aestivum

BAA05515.1	D26509	Nicotiana tabacum	CAA57425.1	X81831	Zea mays
BAA11397.1	D78506	Oryza sativa	CAA72196.1	Y11368	Zea mays
BAB18135.1	AB051215	Glycine max	AAG44132.1	AF218296	Pisum sativum
BAA22439.1	D63952	Zea mays	AAG14962.1	AF214008	Brassica napus
BAA11396.1	D78505	Oryza sativa	AAG14961.1	AF214007	Brassica napus
CAB71341.1	AJ250664	Hordeum vulgare	AAD56282.1	AF155332	Petunia x hybrida
AAD48897.1	AF083613	Dunaliella salina			
AAF80560.1	AF192486	Sesamum indicum	SEQ ID NO. 639		
CAB64256.1	AJ245938	Calendula officinalis	BAB20580.1	AB042267	Zea mays
AAB80696.1	U86072	Petroselinum crispum	BAB20579.1	AB042261	Zea mays
			BAB20581.1	AB042268	Zea mays
			AAK14395.1	AF339732	Dianthus caryophyllus
SEQ ID NO. 636			BAA85113.1	AB031012	Zea mays
AAB16830.1	U49388	Zea mays	BAA82873.1	AB024291	Zea mays
AAB16829.1	U49387	Triticum aestivum	BAA85112.1	AB031011	Zea mays
			BAA75253.1	AB004882	Zea mays
SEQ ID NO. 638			BAB17300.1	AB042260	Zea mays
AAA19701.1	I24438	Thlaspi arvense	BAB20582.1	AB042269	Zea mays
AAA32913.1	M32885	Persea americana	BAB41137.1	AB060130	Zea mays
AAC39318.1	AF029858	Sorghum bicolor			
BAB40323.1	AB037244	Asparagus officinalis	SEQ ID NO. 640		
BAB40324.1	AB037245	Asparagus officinalis	AAG43550.1	AF211532	Nicotiana tabacum
AAB94589.1	AF022460	Glycine max	BAA78746.1	AB023482	Oryza sativa
CAA70575.1	Y09423	Nepeta racemosa	BAA96875.1	AB045121	Oryza sativa
CAA70576.1	Y09424	Nepeta racemosa	BAA90357.1	AP001080	Oryza sativa
AAB94588.1	AF022459	Glycine max	BAA77204.1	AB026262	Cicer arietinum
CAA50312.1	X70981	Solanum melongena	BAA90806.1	AP001168	Oryza sativa
AAB94584.1	AF022157	Glycine max			
AAD47832.1	AF166332	Nicotiana tabacum	SEQ ID NO. 642		
AAE27282.1	AF122821	Capsicum annuum	AAD39991.1	AF150084	Malus x domestica
CAA83941.1	Z33875	Mentha x piperita	AAD39992.1	AF150085	Brassica rapa
CAB56503.1	AJ238612	Catharanthus roseus			
CAA50645.1	X71654	Solanum melongena	SEQ ID NO. 644		
BAA03635.1	D14990	Solanum melongena	CAA47099.1	X66469	Medicago sativa
AAD44151.1	AF124816	Mentha x piperita	AAB41548.1	L07042	Medicago sativa
AAD44150.1	AF124815	Mentha spicata	CAA58761.1	X83880	Nicotiana tabacum
AAD44152.1	AF124817	Mentha x piperita	CAA50036.1	X70703	Pisum sativum
CAC27827.1	AJ295719	Catharanthus roseus	BAA74734.1	AB016802	Zea mays
AAB94587.1	AF022458	Glycine max	AAF81420.1	AF247136	Capsicum annuum
AAD37433.1	AF150881	Lycopersicon esculentum x	AAB58396.1	U94192	Nicotiana tabacum
Lycopersicon peruvianum			AAF65766.1	AF242308	Euphorbia esula
AAG14963.1	AF214009	Brassica napus			

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BAA96628.1	AP002482	Oryza sativa	CAB56503.1	AJ238612	Catharanthus roseus
AAD23582.1	AF128443	Glycine max	AAD47832.1	AF166332	Nicotiana tabacum
BAA05649.1	D26602	Nicotiana tabacum	CAA50645.1	X71654	Solanum melongena
AAF05112.1	AF158091	Mesembryanthemum crystallinum	BAA03635.1	D14990	Solanum melongena
CAA65244.1	X95997	Solanum tuberosum	CAA50312.1	X70981	Solanum melongena
CAA86286.1	Z38126	Malus x domestica	AAG44132.1	AF218296	Pisum sativum
CAA71142.1	Y10036	Cucumis sativus	AAD44151.1	AF124816	Mentha x piperita
CAA78961.1	Z17313	Malus x domestica	CAA70576.1	Y09424	Nepeta racemosa
CAA89202.1	Z49233	Chlamydomonas eugametos	CAA65580.1	X96784	Nicotiana tabacum
CAA57898.1	X82548	Hordeum vulgare	AAD44150.1	AF124815	Mentha spicata
AAF21062.1	AF216527	Dunaliella tertiolecta	AAD44152.1	AF124817	Mentha x piperita
BAA19573.1	AB002109	Oryza sativa	CAA83941.1	Z33875	Mentha x piperita
CAC08564.1	AJ295939	Medicago sativa	CAA64635.1	X95342	Nicotiana tabacum
CRA73068.1	Y12465	Sorghum bicolor	CAA57423.1	X81829	Zea mays
CRA73067.1	Y12464	Sorghum bicolor	CAA72208.1	Y11404	Zea mays
CAA08997.1	AJ010093	Brassica napus	AAG14963.1	AF214009	Brassica napus
CAA48473.1	X68410	Medicago sativa	AAG14962.1	AF214008	Brassica napus
CAA10288.1	AJ131048	Cicer arietinum	AAG14961.1	AF214007	Brassica napus
AAB88537.1	AF035944	Fragaria x ananassa	AAC32274.1	AF081575	Petunia x hybrida
AAG60195.1	AC084763	Oryza sativa	SEQ ID NO. 657		
BAA13608.1	D88399	Oryza sativa	BAB21153.1	AP002899	Oryza sativa
BAB40983.1	AB059621	Oryza sativa	BAA94219.1	AP001633	Oryza sativa
BAA92214.1	AP001278	Oryza sativa	AAC49181.1	U39289	Brassica napus
AAD37166.1	AF132743	Oryza sativa	BAA94236.1	AP001633	Oryza sativa
CAA11861.1	AJ224164	Petunia x hybrida	BAA94228.1	AP001633	Oryza sativa
CAA58595.1	X83620	Petunia x hybrida	BAA94224.1	AP001633	Oryza sativa
AAF23900.1	AF194413	Oryza sativa	BAA94215.1	AP001633	Oryza sativa
AAB66608.1	AF012889	Zea mays	AAC49182.1	U39319	Brassica napus
AAB05457.1	U55768	Oryza sativa			
SEQ ID NO. 655			SEQ ID NO. 667		
AAA32913.1	M32885	Persea americana	AAF91323.1	AF244889	Glycine max
AAC39318.1	AF029858	Sorghum bicolor	CAC20842.1	AJ250467	Pinus sylvestris
AAA19701.1	I24438	Thlaspi arvense	AAB36558.1	U77888	Ipomoea nil
BAB40323.1	AB037244	Asparagus officinalis	AAF91322.1	AF244888	Glycine max
BAB40324.1	AB037245	Asparagus officinalis	AAF91324.1	AF244890	Glycine max
AAB94588.1	AF022459	Glycine max	AAC36318.1	AF053127	Malus x domestica
AAB94589.1	AF022460	Glycine max	AAF59906.1	AF197947	Glycine max
CAA70575.1	Y09423	Nepeta racemosa	AAF59905.1	AF197946	Glycine max
AAF27282.1	AF122821	Capsicum annuum	BAA83373.1	AP000391	Oryza sativa
AAB94584.1	AF022157	Glycine max	BAA84787.1	AP000559	Oryza sativa





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AA65162.1	AF02667	Solanum commersonii	CAA29123.1	X05636	Pisum sativum
CAA47345.1	X66874	Phaseolus vulgaris	CAA73171.1	Y12599	Apium graveolens
AA91472.1	AF035457	Spinacia oleracea	BAA8671.1	AB029614	Nicotiana tabacum
AA91473.1	AF035458	Spinacia oleracea	AAK29450.1	AF352247	Pisum sativum
AA96660.1	AF039084	Spinacia oleracea	AAK29449.1	AF352246	Pisum sativum
			AAK29451.1	AF352248	Pisum sativum
			AAK29456.1	AF352253	Lens culinaris
SEQ ID NO. 676		Vicia faba	AAK29454.1	AF352251	Lens culinaris
AAF78062.1	AF266760	Raphanus sativus	CAA12232.1	AJ224933	Lycopersicon esculentum
BAA32777.1	AB012044	Brassica oleracea	AAK29455.1	AF352252	Lens culinaris
CAA64895.1	X95639	Raphanus sativus	AAA50578.1	U03391	Lycopersicon esculentum
BAA92258.1	AB030695	Brassica oleracea	AAF27930.1	AF222804	Euphorbia esula
CAA64896.1	X95640	Raphanus sativus	AAD41007.1	AF107024	Triticum aestivum
BAA92259.1	AB030696	Vitis vinifera	CAA40362.1	X57077	Zea mays
AAF80556.1	AF188843	Zea mays	BAA87331.1	AB012694	Lilium longiflorum
AAD29676.1	AF131201	Oryza sativa	AA86857.1	AF031547	Fritillaria agrestis
CAA11896.1	AJ224327	Zea mays	CAA07233.1	AJ006767	Cicer arietinum
AAK26755.1	AF326488	Zea mays	AAA50303.1	L34578	Pisum sativum
AAK26754.1	AF326487	Zea mays	AAD41005.1	AF107022	Triticum aestivum
CAA04652.1	AJ001292	Craterostigma planiagineum	AA74723.1	L07946	Volvox carteri
AAF80557.1	AF188844	Vitis vinifera	CAA77867.1	Z11842	Lycopersicon esculentum
AA81601.1	AF024511	Nicotiana tabacum	AA03076.1	U01890	Lycopersicon pennellii
CAA54233.1	X76911	Hordeum vulgare	AAF64525.1	AF253416	Lycopersicon chilense
CAA52068.1	X73848	Lycopersicon esculentum			
BBB40142.1	AB058679	Pyrus communis	SEQ ID NO. 680		
CAC33802.1	AJ271796	Zea mays	AA88134.1	AF034618	Spinacia oleracea
AAK26756.1	AF326489	Zea mays	AAF34134.1	AF161180	Malus x domestica
AA67870.1	U60149	Beta vulgaris	AA899745.1	AF005993	Triticum aestivum
AA82140.1	AF022737	Oryza sativa	AAA21808.1	L23551	Spinacia oleracea
CAA11025.1	AJ222973	Lupinus albus	AA34139.1	L08830	Lycopersicon esculentum
CAB46350.1	Y18311	Solanum tuberosum	AA86942.1	AF031241	Glycine max
			AAK21920.1	AF338252	Glycine max
SEQ ID NO. 677		Oryza sativa	AA891473.1	AF035458	Spinacia oleracea
BAA90487.1	AB037681	Triticum aestivum	AA896660.1	AF039084	Spinacia oleracea
CAA67191.1	X98582	Triticum aestivum	AA891472.1	AF035457	Spinacia oleracea
AAD11549.1	U55859	Lycopersicon esculentum			
AA30456.1	AF123259		SEQ ID NO. 681		
			CAA71801.1	Y10848	Brassica juncea
SEQ ID NO. 678		Lathyrus sativus	AA871230.1	AF017983	Lycopersicon esculentum
AAK29453.1	AF352250	Lathyrus sativus	CAA06613.1	AJ005587	Brassica juncea
AAK29452.1	AF352249	Nicotiana tabacum	AA613459.1	AF128453	Glycine max
AA41651.1	L29456				

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Solanum melongena	X77368	CAA54557.1	SEQ ID NO. 685	AAF29773.1	AF159229	Gossypium hirsutum
Solanum chacoense	AF104925	AAC95363.1	AJ001061	AAF22517.1	AF118924	Papaver somniferum
Medicago sativa	X78994	CAA55628.1	Y09590	AAF22518.1	AF118925	Papaver somniferum
Oryza sativa	AP002069	BAA95828.1	U38651	AAF22519.1	AF118926	Papaver somniferum
Ipomoea nil	D83041	BAA21897.1	X66856	AAG34795.1	AF243360	Glycine max
Petunia x hybrida	X60512	CAA43027.1	CAA47324.1	AAG34839.1	AF244696	Zea mays
Lactuca sativa	AB012203	BAA37127.1	BAB19864.1	AAG34842.1	AF244699	Zea mays
Petunia x hybrida	AF022142	AAC49929.1	BAB19863.1	AAG34830.1	AF244687	Zea mays
Malus sp.	X69664	CAA49353.1	CAB52689.1	AAG34846.1	AF244703	Zea mays
			CAA09419.1	CAA09188.1	AJ010449	Alopecurus myosuroides
			AJ010942	AAD10129.1	AF004358	Aegilops tauschii
			Y09590	AAG34850.1	AF244707	Zea mays
			U38651	AAG34835.1	AF244692	Zea mays
			X66856	AAG34848.1	AF244705	Zea mays
			AB052885	CAA09187.1	AJ010448	Alopecurus myosuroides
			AB052884	CAA09189.1	AJ010450	Alopecurus myosuroides
			AJ132224	AAG34845.1	AF244702	Zea mays
			CAA09419.1	AAG34797.1	AF243362	Glycine max
			AJ010942	AAG34838.1	AF244695	Zea mays
			Y07520	AAG34834.1	AF244691	Zea mays
			Y07520	AAG34809.1	AF243374	Glycine max
			AJ132223	AAG34829.1	AF244686	Zea mays
			AF173655	AAG34798.1	AF243363	Glycine max
			AF173655	AAG34837.1	AF244694	Zea mays
			AJ132225	AAG34849.1	AF244706	Zea mays
			AF215837	AAG34803.1	AF243368	Glycine max
			AF215853	AAG34833.1	AF244690	Zea mays
			AF215852	AAG34801.1	AF243366	Glycine max
			AF215854	AAG34841.1	AF244698	Zea mays
			AF215851	AAG34844.1	AF244701	Zea mays
			AF215851	AAG34836.1	AF244693	Zea mays
			AF215851	AAG34802.1	AF243367	Glycine max
			AF215851	AAC32118.1	AF051214	Picea mariana
			AF215851	AAG34796.1	AF243361	Glycine max
			AF215851	AAG34843.1	AF244700	Zea mays
			AF215851	AAF64450.1	AF239928	Euphorbia esula
			AF215851	AAG34831.1	AF244688	Zea mays
			AF215851	AAG34847.1	AF244704	Zea mays
			AF215851	AAG34840.1	AF244697	Zea mays
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SEQ ID NO. 696	AAK27801.1	AC022457	Oryza sativa	BAA03763.1	D16247	Nicotiana sylvestris
AAC78102.1	AF093630		Oryza sativa	AAF75791.1	AF271892	Pisum sativum
				AAF40306.1	AF156667	Vigna radiata
				CAA68193.1	X99937	Spinacia oleracea
SEQ ID NO. 697	AAF89209.1	AF279252	Vigna radiata	AAD20980.1	AF079782	Zea mays
AAB17070.1	U54770		Lycopersicon esculentum	BAA95705.1	AB042644	Oryza sativa
AAG41777.1	AF212991		Cucurbita maxima	BAA95704.1	AB042643	Oryza sativa
AAK00946.1	AF318211		Taxus cuspidata	AAG48833.1	AC084218	Oryza sativa
AAK11616.1	AF326277		Hordeum vulgare			
AAF20011.1	AF216313		Helianthus annuus	SEQ ID NO. 701		
BAB40322.1	AB036772		Triticum aestivum	AAB62580.1	U63298	Pisum sativum
AAF45142.1	AF195818		Glycine max	AAC49665.1	U83707	Lycopersicon esculentum
AAF34533.1	AF195812		Pisum sativum	SEQ ID NO. 704		
AAD44150.1	AF124815		Mentha spicata	AAA33443.1	L15390	Zea mays
AAF34538.1	AF195817		Beta vulgaris	BAA13232.1	D87042	Zea mays
AAF34536.1	AF195815		Trifolium repens	AAB49984.1	U90262	Cucurbita pepo
AAF27282.1	AF122821		Capsicum annuum	BAA12338.1	D84408	Zea mays
AAF34525.1	AF195804		Lens culinaris	AAB70706.1	U82087	Tortula ruralis
AAB38929.1	AF135484		Glycine max	CAA07481.1	AJ007366	Zea mays
AAB94593.1	AF022464		Glycine max	AAB80692.1	U69173	Glycine max
AAF34527.1	AF195806		Vigna radiata	AAC49405.1	U08140	Vigna radiata
CAA70575.1	Y09423		Nepeta racemosa	BAA85396.1	AP000615	Oryza sativa
AAF34530.1	AF195809		Vigna radiata	CAA57156.1	X81393	Oryza sativa
AAF34535.1	AF195814		Trifolium repens	AAC05270.1	AF048691	Oryza sativa
AAF34532.1	AF195811		Trifolium pratense	BAA81749.1	AB017515	Marchantia polymorpha
AAF34529.1	AF195808		Vigna radiata	BAA81751.1	AB017517	Marchantia polymorpha
AAD44151.1	AF124816		Mentha x piperita	BAA81750.1	AB017516	Marchantia polymorpha
AAF34531.1	AF195810		Trifolium pratense	BAA81748.1	AB017515	Marchantia polymorpha
BAA76380.1	AB023636		Glycyrrhiza echinata	CAA57157.1	X81394	Oryza sativa
AAF45143.1	AF195819		Glycine max	AAC25423.1	AF072908	Nicotiana tabacum
AAF34528.1	AF195807		Vigna radiata	BAA12715.1	D85039	Zea mays
AAB94591.1	AF022462		Glycine max	CAA65500.1	X96723	Medicago sativa
BAB40323.1	AB037244		Asparagus officinalis	AAA69507.1	U28376	Zea mays
BAB40324.1	AB037245		Asparagus officinalis	AAB80693.1	U69174	Glycine max
AAF34534.1	AF195813		Lupinus albus	BAA02698.1	D13436	Oryza sativa
CAB56742.1	AJ249800		Cicer arietinum	AAD17800.1	AF090835	Mesembryanthemum crystallinum
AAF34526.1	AF195805		Lens culinaris	AAG46110.1	AC073166	Oryza sativa
				AAD28192.2	AF115406	Solanum tuberosum
				BAA13440.1	D87707	Ipomoea batatas
SEQ ID NO. 699				AAA61682.1	L27484	Zea mays

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SEQ ID NO. 711	AF001633	BAA94228.1	Oryza sativa	AF347614	AAK27688.1	Lycopersicon esculentum
	AP001633	BAA94224.1	Oryza sativa	AF309643	AAG41419.1	Solanum tuberosum
	AP001633	BAA94219.1	Oryza sativa	AF347613	AAK27687.1	Lycopersicon esculentum
	AP001633	BAA94236.1	Oryza sativa	U52867	AAA97952.1	Hordeum vulgare
	AP001633	BAA94215.1	Oryza sativa	X82256	CAA57711.1	Stylosanthes hamata
	U39289	AAC49181.1	Brassica napus	X96431	CAA65291.1	Hordeum vulgare
	U39319	AAC49182.1	Brassica napus	AF32255	CAA57710.1	Stylosanthes hamata
	AP002899	BAB21153.1	Oryza sativa	AF355602	AAK35215.1	Zea mays
				X96761	CAA65536.1	Sporobolus stapfianus
				X82454	CAA57831.1	Stylosanthes hamata
				AJ223495	CAA11413.1	Brassica juncea
				AF016306	AAB94543.1	Zea mays
SEQ ID NO. 712						
AAC49373.1	U31462		Lactuca sativa	SEQ ID NO. 718		
CAB59211.1	AJ250433		Spinacia oleracea	AAC25922.1	U78947	Malus x domestica
AAC50031.1	U34817		Nicotiana tabacum	AAD51422.1	U78949	Malus x domestica
AAF97601.2	AF288196		Oryza sativa subsp. indica	AAF13262.1	AF198176	Dendrobium grex Madame Thong-In
				AAF13260.1	AF198174	Dendrobium grex Madame Thong-In
SEQ ID NO. 713				AAB50187.1	U49734	Sorghum bicolor
AAB39556.1	U64789		Lycopersicon esculentum			
SEQ ID NO. 715				SEQ ID NO. 719		
BAA36554.1	AB011796		Citrus unshiu	AAA91063.1	M88254	Hevea brasiliensis
AAF64168.1	AF240764		Eustoma grandiflorum			
CAA80264.1	222543		Petunia x hybrida	SEQ ID NO. 723		
CAA63092.1	X92178		Solanum tuberosum	CAC33000.1	AJ272523	Solanum tuberosum
AAD26261.1	AF119095		Malus x domestica	CAC33003.1	AJ272526	Solanum tuberosum
				CAC33002.1	AJ272525	Solanum tuberosum
				CAC33001.1	AJ272524	Solanum tuberosum
				CAC32999.1	AJ272522	Solanum tuberosum
				AAD44338.1	AF160197	Glycine max
SEQ ID NO. 716						
AAK14395.1	AF339732		Dianthus caryophyllus	SEQ ID NO. 724		
BAB20581.1	AB042268		Zea mays	AAD18052.1	AF124161	Nicotiana plumbaginifolia
BAB20580.1	AB042267		Zea mays	AAD18053.1	AF124162	Nicotiana plumbaginifolia
BAB20579.1	AB042261		Zea mays			
BAA85113.1	AB031012		Zea mays	SEQ ID NO. 729		
BAA82873.1	AB024291		Zea mays	CAA48155.1	X68017	Capsicum annuum
BAB17300.1	AB042260		Zea mays	AAF33237.1	AF220218	Citrus unshiu
BAA75253.1	AB004882		Zea mays	BAB18514.1	AB037975	Citrus unshiu
BAA85112.1	AB031011		Zea mays	CAC27383.1	AJ308385	Helianthus annuus
BAB20582.1	AB042269		Zea mays	CAC19567.1	AJ304825	Helianthus annuus
BAB41137.1	AB060130		Zea mays			
SEQ ID NO. 717						

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CAA66236.1	X97640	Antirrhinum majus	AAF91322.1	AF244888	Glycine max
BAB18271.1	AB035141	Chlamydomonas reinhardtii	AAK11674.1	AF339747	Lophopyrum elongatum
CAA66235.1	X97639	Antirrhinum majus	AAF43496.1	AF131222	Lophopyrum elongatum
CAA47099.1	X66469	Medicago sativa	AAB09771.1	U67422	Zea mays
AAB41548.1	L07042	Medicago sativa	CAC20842.1	AJ250467	Pinus sylvestris
BAA09600.1	D61377	Nicotiana tabacum	AAF59906.1	AF197947	Glycine max
SEQ ID NO. 735			AAG25966.1	AF302082	Nicotiana tabacum
AAD16139.1	AF096299	Nicotiana tabacum	AAF59905.1	AF197946	Glycine max
CAA88326.1	Z48429	Avena fatua	AAB61708.1	U93048	Daucus carota
AAC49527.1	U48831	Petroselinum crispum	BAA94516.1	AF001800	Oryza sativa
AAC49529.1	U58540	Petroselinum crispum	CAB51834.1	O0069	Oryza sativa
AAC37515.1	I44134	Cucumis sativus	AAB36558.1	U77888	Ipomoea nil
AAD16138.1	AF096298	Nicotiana tabacum	AAG52994.1	U77888	Ipomoea nil
AAC49528.1	U56834	Petroselinum crispum	AAF66615.1	AF142596	Nicotiana tabacum
BAA77358.1	AB020023	Nicotiana tabacum	SEQ ID NO. 739		
CAA88331.1	Z48431	Avena fatua	AAB80804.1	U90341	Pinus radiata
CAB66338.1	AJ279697	Betula pendula	CAA62921.1	X91811	Oryza sativa
AAF61863.1	AF193770	Nicotiana tabacum	BAA29039.1	AB015430	Humulus lupulus
AAF61864.1	AF193771	Nicotiana tabacum	BAA36224.1	AB004905	Ipomoea purpurea
AAD27591.1	AF121354	Petroselinum crispum	BAA20387.1	AB001826	Ipomoea purpurea
BAA87069.1	AB035271	Matricaria chamomilla	AAG30295.1	AF315345	Hypericum androsaemum
SEQ ID NO. 737			CAA71904.1	Y11022	Betula pendula
CAA06216.1	AJ004916	Prunus avium	BAA87922.1	AB022682	Psilotum nudum
AAB69322.2	AF012866	Petroselinum crispum	BAA87336.1	AB027533	Ipomoea nil
AAB69323.1	AF012867	Petroselinum crispum	BAA21787.1	AB001818	Ipomoea nil
SEQ ID NO. 738			CAA32737.1	X14597	Petunia x hybrida
AAG16628.1	AY007545	Brassica napus	CAA10641.1	AJ132323	Casuarina glauca
AAF91336.1	AF249317	Glycine max	BAA90327.1	AB037388	Ipomoea batatas
BAA82394.1	AF000367	Oryza sativa	AAA33951.1	L03352	Glycine max
AAC61805.1	U28007	Lycopersicon esculentum	BAA90330.1	AB037391	Ipomoea batatas
AAF91337.1	AF249318	Glycine max	BAA75310.1	AB023791	Ipomoea batatas
BAA94509.1	AB041503	Populus nigra	BAA31259.1	AB015872	Vitis vinifera
BAA94510.1	AB041504	Populus nigra	BAA90331.1	AB037392	Ipomoea batatas
AAK21965.1	AY028699	Brassica napus	CAA53583.1	X75969	Vitis vinifera
BAA78764.1	AB023482	Oryza sativa	BAA21789.1	AB001827	Ipomoea purpurea
AAF91324.1	AF244890	Glycine max	BAA21788.1	AB001819	Ipomoea nil
AAF91323.1	AF244889	Glycine max	BAA87338.1	AB027535	Ipomoea nil
AAG03090.1	AC073405	Oryza sativa	BAA87337.1	AB027534	Ipomoea purpurea
			BAA90328.1	AB037389	Ipomoea batatas
			BAA05641.1	D26594	Camellia sinensis

BAA90332.1	AB037393	Ipomoea batatas	SEQ ID NO. 742	AAK27968.1	AF242372	Ipomoea batatas
CAC19808.1	AJ304877	Humulus lupulus	AAD53012.1	AF089849	Brassica napus	Brassica napus
AAB72091.1	AF020709	Vitis vinifera	AAD53011.1	AF089848	Brassica napus	Brassica napus
CAA91930.1	Z67988	Callistephus chinensis	AAD28477.1	AF133839	Sandersonia aurantiaca	Sandersonia aurantiaca
BAA90329.1	AB037390	Ipomoea batatas	AAC35211.1	U12637	Hemerocallis hybrid cultiv	Hemerocallis hybrid cultiv
AAB36038.1	S80857	Petunia x hybrida	CAB09699.1	Z97023	Hordeum vulgare	Hordeum vulgare
CRA10511.1	AJ131813	Catharanthus roseus	CAB09697.1	Z97021	Hordeum vulgare	Hordeum vulgare
CAA32731.1	X14591	Petunia x hybrida	CAB17074.1	Z99952	Phaseolus vulgaris	Phaseolus vulgaris
AAK15174.1	AF292367	Rubus idaeus	AAD10337.1	U94591	Hordeum vulgare	Hordeum vulgare
CAA38456.1	X54644	Glycine max	CAA56844.1	X80876	Oryza sativa	Oryza sativa
CAA46590.1	X65636	Glycine max	BAA83472.1	AB004648	Oryza sativa	Oryza sativa
CAA37909.1	X53958	Glycine max	AAB68374.1	U52970	Phaseolus vulgaris	Phaseolus vulgaris
AAB01004.1	L07647	Glycine max	CAA12118.1	AJ224766	Phaseolus vulgaris	Phaseolus vulgaris
BAA90486.1	AB037680	Ipomoea batatas	APA85036.1	U19384	Hordeum vulgare	Hordeum vulgare
AAB05239.1	U47738	Solanum tuberosum	AAC62396.1	AF050756	Ricinus communis	Ricinus communis
SEQ ID NO. 740			AAC49455.1	U41902	Pseudotsuga menziesii	Pseudotsuga menziesii
CAA62476.1	X90990	Solanum tuberosum	AAA85035.1	U19359	Hordeum vulgare	Hordeum vulgare
AAE66637.1	AF143505	Lycopersicon esculentum	CAA84378.1	Z34895	Vicia sativa	Vicia sativa
CAA66616.1	X97980	Solanum berthaultii	CAA05894.1	AJ003137	Lycopersicon esculentum	Lycopersicon esculentum
BAA96593.1	AP002481	Oryza sativa	AAD48496.1	AF172856	Lycopersicon esculentum	Lycopersicon esculentum
CAA82993.1	Z30332	Spinacia oleracea	BAA22545.1	D38533	Ananas comosus	Ananas comosus
CAA82994.1	Z30333	Mesembryanthemum crystallinum	BAA22544.1	D38532	Ananas comosus	Ananas comosus
AAA50304.1	M92989	Pisum sativum	BAA22543.1	D38531	Ananas comosus	Ananas comosus
CAA82992.1	Z30331	Mesembryanthemum crystallinum	AAB37233.1	U34747	Phalaenopsis sp. SM9108	Phalaenopsis sp. SM9108
CAB82852.1	Z30329	Mesembryanthemum crystallinum	CAB16317.1	Z99173	Nicotiana tabacum	Nicotiana tabacum
BAB03409.1	AP002816	Oryza sativa	CAA08860.1	AJ009829	Ananas comosus	Ananas comosus
CAA82991.1	Z30330	Spinacia oleracea	AAB88263.1	AF019147	Zea mays	Zea mays
CAA50374.1	X71057	Nicotiana tabacum	BAA88898.1	AB020961	Zea mays	Zea mays
AAD37166.1	AF132743	Oryza sativa	CAA08861.1	AJ009830	Ananas comosus	Ananas comosus
BAA83689.1	AB011968	Oryza sativa	CAA05487.1	AJ002477	Ananas comosus	Ananas comosus
AAF97501.1	AF199021	Chlamydomonas reinhardtii	AAA79915.1	U17135	Dianthus caryophyllus	Dianthus caryophyllus
CAA73068.1	Y12465	Sorghum bicolor	CAA53377.1	X75749	Vicia sativa	Vicia sativa
AAA34002.1	M67449	Glycine max	CAB53515.1	AJ245924	Solanum tuberosum	Solanum tuberosum
AAF19403.1	AF203481	Lycopersicon esculentum	CAB17076.1	Z99954	Phaseolus vulgaris	Phaseolus vulgaris
CAA73067.1	Y12464	Sorghum bicolor	SEQ ID NO. 743			
BAA83688.1	AB011967	Oryza sativa	BAA96853.1	AB045113	Enteromorpha compressa	Enteromorpha compressa
AAB93863.1	U99682	Lycopersicon esculentum	SEQ ID NO. 746			
AAD50588.1	AF089102	Salvia columbariae	CAA33980.1	X15901	Plastid Oryza sativa	Plastid Oryza sativa
AAB93860.1	U99679	Lycopersicon esculentum				

CAA65749.1	X97022	Brassica oleracea
AAF66242.1	AF243180	Lycopersicon esculentum
AAD10251.1	AF031195	Triticum aestivum
CAA80963.1	Z25471	Pisum sativum
AAC32448.1	U76296	Spinacia oleracea
CAA10134.1	AJ012693	Cicer arietinum
AAF66243.1	AF243181	Lycopersicon esculentum
CAB65280.1	AJ248323	Medicago sativa subsp. x v
AAC64163.1	AF093537	Zea mays
SEQ ID NO.	757	
AAA92677.1	U13736	Pisum sativum
CAA66159.1	X97558	Capsicum annuum
CAA09302.1	AJ010645	Capsicum annuum
AAA34144.1	M67472	Lycopersicon esculentum
CAA62150.1	X90560	Physcomitrella patens
ABA46588.1	U83402	Capsicum annuum
BAA87825.1	AP000815	Oryza sativa
AAF65511.1	AF108889	Capsicum annuum
AAA85157.1	U20297	Solanum tuberosum
AAA85156.1	U20296	Solanum tuberosum
AAA62351.1	U20295	Solanum tuberosum
AAA85155.1	U20294	Solanum tuberosum
AAA33900.1	I18914	Oryza sativa
CAA78288.1	Z12828	Oryza sativa
AAC49583.1	U48692	Triticum aestivum
AAC49582.1	U48691	Triticum aestivum
CAA61980.1	X89890	Bidens pilosa
CAA67054.1	X98404	Capsicum annuum
AAA33083.1	M20729	Chlamydomonas reinhardtii
AAG11418.1	AF292108	Prunus avium
AAF33852.1	AF231026	Oryza sativa
AAA92681.1	U13882	Pisum sativum
AAA33706.1	M80836	Petunia x hybrida
AAA33705.1	M80831	Petunia x hybrida
AAA98933.1	U37936	Oryza sativa
CAA43143.1	X60738	Malus x domestica
CAA78301.1	Z12839	Lilium longiflorum
CAA42423.1	X59751	Daucus carota
AAF73157.1	AF150059	Brassica napus
AAA19571.1	U10150	Brassica napus

AAA87347.1	M88307	Brassica juncea	BAA05623.1	D26574	Daucus carota
AAG27432.1	AF295637	Elaeis guineensis	AAD37698.1	AF145729	Oryza sativa
BAA94697.1	AB041712	Chara corallina	BAA93461.1	AB028073	Physcomitrella patens
BAA94696.1	AB041711	Chara corallina	BAA93467.1	AB028079	Physcomitrella patens
BAA96536.1	AB044286	Chara corallina	BAA93468.1	AB028080	Physcomitrella patens
AAC18355.1	AF064456	Oryza sativa subsp. indica	BAA93460.1	AB028072	Physcomitrella patens
AAA34237.1	L20691	Vigna radiata	AAD37699.1	AF145730	Oryza sativa
CAA52602.1	X74490	Zea mays	CAA06717.1	AJ005820	Craterostigma plantagineum
CAA54583.1	X77397	Zea mays	BAA93463.1	AB028075	Physcomitrella patens
AAC49585.1	U49103	Triticum aestivum	CAA65456.2	X96681	Oryza sativa
AAC49586.1	U49104	Triticum aestivum	AAF19980.1	AF211193	Oryza sativa
AAC49587.1	U49105	Triticum aestivum	AAK31270.1	AC079890	Oryza sativa
AAC49580.1	U48689	Triticum aestivum	CAA06728.1	AJ005833	Craterostigma plantagineum
AAC49584.1	U48693	Triticum aestivum	AAD37696.1	AF145727	Oryza sativa
SEQ ID NO. 760			SEQ ID NO. 765		
BAA06405.1	D30744	Zea mays	BAA92738.1	AP001389	Oryza sativa
CAC20908.1	AJ131825	Scherffelia dubia	CAC27142.1	AJ132537	Picea abies
SEQ ID NO. 761			BAA23724.1	AB009086	Chlamydomonas sp. W80
CAB60277.1	AJ002586	Solanum tuberosum	CAA10989.1	AJ222784	Hordeum vulgare
CAA72107.1	Y11220	Solanum tuberosum	SEQ ID NO. 766		
BAA92172.1	AB024733	Symplocarpus renifolius	CAA32185.1	X14020	Pisum sativum
BAB40658.1	AB049998	Oryza sativa	AAA34114.1	M87839	Nicotiana tabacum
BAA92173.1	AB024734	Symplocarpus renifolius	AAA34086.1	M87838	Nicotiana tabacum
BAB16385.1	AB042429	Triticum aestivum	AAA34042.1	M58522	Spinacia oleracea
BAB16384.1	AB042428	Triticum aestivum	SEQ ID NO. 767		
BAB40657.1	AB049997	Oryza sativa	AAA80638.1	U23784	Nicotiana glutinosa
SEQ ID NO. 762			BAA96368.1	AB043976	Panax ginseng
AAF01764.2	AF184277	Glycine max	AAF42953.1	AF237624	Perilla frutescens
BAA21017.1	D26578	Daucus carota	AAC32133.1	AF051232	Picea mariana
AAD37697.1	AF145728	Oryza sativa	CAA47044.1	X66413	Chlamydomonas reinhardtii
CAB67118.1	Y17306	Lycopersicon esculentum	BAA78583.1	AU066500	Chlamydomonas sp. HS-5
AAF01765.1	AF184278	Glycine max	SEQ ID NO. 769		
BAA05624.1	D26575	Daucus carota	BAA23815.1	D67043	Oryza sativa
BAA93466.1	AB028078	Physcomitrella patens	CAA45022.1	X63428	Panicum miliaceum
BAA93465.1	AB028077	Physcomitrella patens	BAA04993.1	D25323	Panicum miliaceum
BAA93464.1	AB028076	Physcomitrella patens	AAA98603.1	L40579	Glycine max
BAA05622.1	D26573	Daucus carota	CAA45024.1	X63430	Panicum miliaceum
BAA05625.1	D26576	Daucus carota			

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BAA84640.1	AB007911	Pisum sativum	BAA09645.1	D63331	Nicotiana tabacum
CAA98178.1	Z73950	Lotus japonicus	BAA11770.1	D83078	Nicotiana tabacum
BAA06702.1	D31906	Zea mays	BAA77679.1	AB027054	Oryza sativa
CAA67153.1	X98540	Fagus sylvatica	SEQ ID NO. 778		
CAA98182.1	Z73954	Lotus japonicus	CAA62261.1	X90727	Brassica napus
AAA34253.1	L08130	Volvox carteri	AAF80463.1	AF162283	Glycine max
AAB28535.1	S66160	Oryza sativa	AAB67836.1	U40666	Glycine max
AAB97115.1	U58854	Glycine max	AA644776.1	AF271796	Glycine max
AAA61831.1	L35845	Oryza sativa	AA644765.1	AF271071	Chloroplast Glycine max
SEQ ID NO. 775			CAA62265.1	X90731	Brassica napus
CAA47962.1	X67733	Zea mays	CAA62264.1	X90730	Brassica napus
AAF34428.1	AF172282	Oryza sativa	CAA62266.1	X90732	Brassica napus
BAA94517.1	AP001800	Oryza sativa	CAA62263.1	X90729	Brassica napus
BAA94516.1	AP001800	Oryza sativa	CAA62262.1	X90728	Brassica napus
AAA33915.1	L27821	Oryza sativa	SEQ ID NO. 779		
BAA94529.2	AP001800	Oryza sativa	CAA47056.1	X66428	Hordeum vulgare
BAA92954.1	AP001551	Oryza sativa	AAC26197.1	AF052429	Zea mays
BAA92953.1	AP001551	Oryza sativa	AAK06774.1	AF323725	Chlamydomonas reinhardtii
AAC27489.1	AF077130	Oryza sativa	AA55563.1	AF110781	Volvox carteri f. nagariensis
AAC02535.1	AF044260	Oryza sativa	SEQ ID NO. 781		
AAF78021.1	AF238477	Oryza sativa	BAA25753.1	AB012932	Vigna radiata
AAD46916.1	AF164020	Oryza sativa	BAA75232.1	AB018526	Ipomoea nil
AAF68398.1	AF237568	Oryza sativa	SEQ ID NO. 783		
AAD46420.1	AF100771	Hordeum vulgare	AAD11482.1	U51192	Glycine max
AAC49629.1	U51330	Triticum aestivum	AAD11481.1	U51191	Glycine max
AAC01746.1	AF044489	Oryza sativa	AAA65636.1	L13653	Lycopersicon esculentum
BAB39437.1	AP003338	Oryza sativa	AAA65637.1	L13654	Lycopersicon esculentum
AAF78019.1	AF238475	Oryza sativa	CAA76374.2	Y16776	Spinacia oleracea
AAF78044.1	AF248493	Oryza sativa	BAA03644.1	D14997	Oryza sativa
AAF78018.1	AF238474	Oryza sativa	CAA80502.1	Z22920	Spirodela polyrrhiza
AAD46917.1	AF164021	Oryza sativa	BAA07664.1	D42065	Nicotiana tabacum
AAF78016.1	AF238472	Oryza sativa	BAA07663.1	D42064	Nicotiana tabacum
AAD44031.1	AF085166	Hordeum vulgare	AAF63024.1	AF244921	Spinacia oleracea
AAK21965.1	AY028699	Brassica napus	BAA77387.1	AB024437	Scutellaria baicalensis
AAD43962.1	U78762	Triticum aestivum	AAA32676.1	M37637	Arachis hypogaea
SEQ ID NO. 776			CAC21393.1	AJ401276	Zea mays
AAB95118.1	U71244	Brassica rapa	CAA64413.1	X94943	Lycopersicon esculentum
SEQ ID NO. 777					

AAD11483.1	U51193	Glycine max	AAB38784.1	U72154	Brassica nigra
AAD11484.1	U51194	Glycine max	AAF03675.1	AF149311	Rauvolfia serpentina
AAB67737.1	L77080	Stylosanthes humilis	BAA11831.1	D83177	Costus speciosus
CAA62226.1	X90693	Medicago sativa	AAF34650.1	AF221526	Prunus serotina
AAD37429.2	AF149279	Phaseolus vulgaris	AAA91166.1	U39228	Prunus avium
BAA82307.1	AB027753	Nicotiana tabacum	CAA64442.1	X94986	Manihot esculenta
AAD37375.1	AF145349	Glycine max	AAB22162.1	S35175	Manihot esculenta
CAB94692.1	AJ242742	Ipomoea batatas	AAF04007.1	AF163097	Dalbergia cochinchinensis
AAD37427.1	AF149277	Phaseolus vulgaris	AAF28800.1	AF112888	Catharanthus roseus
AAD37430.1	AF149280	Phaseolus vulgaris	BAA78708.1	AB003089	Polygonum tinctorium
BAA92500.1	AP001383	Oryza sativa	AAG25897.1	AF170087	Cucurbita pepo
CAA71492.1	Y10466	Spinacia oleracea	AAC69619.1	AF072736	Pinus contorta
CAB67121.1	Y19023	Lycopersicon esculentum	AAB71381.1	U95298	Manihot esculenta
CAA50597.1	X71593	Lycopersicon esculentum	AAD09850.1	U44087	Zea mays
AAB97734.1	AF014502	Glycine max	CAA52293.1	X74217	Zea mays
CAA71494.1	Y10468	Spinacia oleracea	AAD10503.1	U33816	Zea mays
CAC21391.1	AJ401274	Zea mays	AA65946.1	U25157	Zea mays
AAB41811.1	L36157	Medicago sativa	AAB03266.1	U44773	Zea mays
AAC98519.1	AF007211	Glycine max	CAA40057.1	X56733	Trifolium repens
AAF63027.1	AF244924	Spinacia oleracea	AAD02839.1	AF082991	Avena sativa
CAA62615.1	X91232	Mercurialis annua	CAA40058.1	X56734	Trifolium repens
CAA62227.1	X90694	Medicago sativa	AAC49177.1	U33817	Sorghum bicolor
BAA94962.1	AB042103	Asparagus officinalis	CAA55196.1	X78433	Avena sativa
CAA66037.1	X97351	Populus balsamifera subsp.	AAQ0614.1	AF293849	Secale cereale
trichocarpa			AAK07429.1	AF321287	Musa acuminata
BAA01950.1	D11337	Vigna angularis	AA887339.1	L41869	Hordeum vulgare
CAA62597.1	X91172	Raphanus sativus	CAA79989.2	Z21977	Brassica napus
AAC49820.1	AF014469	Oryza sativa	CAC08209.1	AJ005950	Cicer arietinum
BAA90365.1	AP001081	Oryza sativa	AAA84906.1	U28047	Oryza sativa
AAF65464.2	AF247700	Oryza sativa			
BAA89584.1	AP001073	Oryza sativa			
CAA09881.1	AJ011939	Trifolium repens			
SEQ ID NO. 784			SEQ ID NO. 786		
AAD25300.1	AF088276	Lycopersicon esculentum	BAA13232.1	D87042	Zea mays
CAA63704.1	X93301	Oryza sativa	BAA12338.1	D84408	Zea mays
AAD24966.1	AF109150	Lycopersicon esculentum	AAB49984.1	U90262	Cucurbita pepo
AAD25225.1	AF088279	Potamogeton crispus	CAA07481.1	AJ007366	Zea mays
			AAB70706.1	U82087	Tortula ruralis
			AAB80692.1	U69173	Glycine max
			AAC49405.1	U08140	Vigna radiata
SEQ ID NO. 785			BAA81749.1	AB017515	Marchantia polymorpha
CAA57913.1	X82577	Brassica napus	BAA81751.1	AB017517	Marchantia polymorpha
			BAA81750.1	AB017516	Marchantia polymorpha

AB017515	BAA81748.1	Marchantia polymorpha	AAF33823.1	AF223351	Nicotiana tabacum
I15390	AAA33443.1	Zea mays	CAA75546.1	Y15253	Pisum sativum
X81393	CAA57156.1	Oryza sativa	CAA63893.1	X94183	Solanum tuberosum
AF000615	BAA85396.1	Oryza sativa	AAB03258.1	U41474	Glycine max
AF048691	AAC05270.1	Oryza sativa	AAA74441.1	U25027	Glycine max
I27484	AAA61682.1	Zea mays	CAA65127.1	X95877	Nicotiana rustica
AF072908	AAC25423.1	Nicotiana tabacum	CAA72681.1	Y11931	Nicotiana rustica
AC073166	AAG46110.1	Oryza sativa	CAA63777.1	X93564	Solanum tuberosum
D13436	BAA02698.1	Oryza sativa	AAD26119.1	AF108123	Brassica napus
D87707	BAA13440.1	Ipomoea batatas	AAB03259.1	U41475	Glycine max
U69174	AAB80693.1	Glycine max	AAB03257.1	U41473	Glycine max
AF090835	AAD17800.1	Mesembryanthemum crystallinum	AAB41107.1	U85250	Vigna unguiculata
X96723	CAA65500.1	Medicago sativa	CAC13988.1	AJ291467	Digitaria sanguinalis
X81394	CAA57157.1	Oryza sativa	AAK01711.1	AF332874	Oryza sativa
X56599	CAA39936.1	Daucus carota	SEQ ID NO. 788		
D85039	BAA12715.1	Zea mays	AAF34428.1	AF172282	Oryza sativa
U28376	AAA69507.1	Zea mays	BAA94516.1	AP001800	Oryza sativa
AF115406	AAD28192.2	Solanum tuberosum	BAA94517.1	AP001800	Oryza sativa
AY027885	AAK26164.1	Cucumis sativus	AAC23542.1	U20948	Ipomoea trifida
AF216527	AAF21062.1	Dunaliella tertiolecta	BAA94529.2	AP001800	Oryza sativa
AF035944	AAB88537.1	Fragaria x ananassa	AAA33915.1	L27821	Oryza sativa
Z49233	CAA89202.1	Chlamydomonas eugametos	CAA73133.1	Y12530	Brassica oleracea
AF194413	AAF23900.1	Oryza sativa	CAA67145.1	X98520	Brassica oleracea
AF194414	AAF23901.2	Oryza sativa	BAA23676.1	AB000970	Brassica rapa
AF030879	AAC78558.1	Solanum tuberosum	AAA33008.1	M97667	Brassica napus
AF051211	AAC32116.1	Picea mariana	CAB89179.1	AJ245479	Brassica napus subsp. napus
Y18055	CAB46228.1	Arachis hypogaea	BAA92836.1	AB032473	Brassica oleracea
X83869	CAA58750.1	Daucus carota	BAA07576.1	D38563	Brassica rapa
S82324	AAB47181.1	Zea mays	BAA92837.1	AB032474	Brassica oleracea
D84507	BAA12691.1	Zea mays	BAA07577.2	D38564	Brassica rapa
D38452	BAA22410.1	Zea mays	AAA33000.1	M76647	Brassica oleracea
D84508	BAA12692.1	Zea mays	BAA92954.1	AP001551	Oryza sativa
AF289237	AAG01179.1	Zea mays	BAA06285.1	D30049	Brassica rapa
AF009337	AAC24961.1	Tradescantia virginiana	BAA21132.1	D88193	Brassica rapa
AF001168	BAA90814.1	Oryza sativa	AAA62232.1	U00443	Brassica napus
U24188	AAC49008.1	Lilium longiflorum	CAA47962.1	X67733	Zea mays
U38446	AAF21450.1	Nicotiana tabacum	CAA79355.1	Z18921	Brassica oleracea
			BAB21001.1	AB054061	Brassica rapa
			CAB41879.1	Y18260	Brassica oleracea
			AAD46420.1	AF100771	Hordeum vulgare
		Solanum tuberosum	SEQ ID NO. 787		
		Nicotiana tabacum	CAA63954.1	X94289	
			AAF33824.1	AF223573	



BAA92953.1	AP001551	Oryza sativa	AAC32126.1	AF051225	Picea mariana
BAB39437.1	AP003338	Oryza sativa	CAB46645.1	AJ243455	Lycopersicon esculentum
AAF78019.1	AF238475	Oryza sativa	AA11475.2	U52520	Pisum sativum
AAF43400.1	AF230507	Oryza sativa subsp. japonica	CAA57555.1	X82035	Oryza sativa
SEQ ID NO. 789			CAB60839.1	AJ011108	Lycopersicon esculentum
CAA99990.1	Z75660	Sesbania rostrata	CAB46642.1	AJ243452	Lycopersicon esculentum
CAA44632.1	X62820	Glycine max	BAA11560.1	D82349	Adiantum capillus-veneris
CAA53728.1	X76122	Antirrhinum majus	AAA20237.1	U10077	Zea mays
AAC61889.1	U24194	Lupinus luteus	BAA09465.1	D50869	Glycine max
AAF88072.1	AF287306	Cicer arietinum	BAA09466.1	D50870	Glycine max
AAD31790.1	AF126107	Lupinus luteus	SEQ ID NO. 790		
BAA20411.1	D86386	Catharanthus roseus	AAC24504.1	AF041050	Populus tremuloides
AAC61888.1	U24193	Lupinus luteus	CAC36095.1	X69955	Glycine max
AAD31789.1	AF126106	Lupinus luteus	AAF37732.1	AF052221	Lolium perenne
AAC24245.1	U44857	Lupinus luteus	BAA08366.2	D49367	Lithospermum erythrorhizon
AAD31791.1	AF126108	Lupinus luteus	AAG43823.1	AF212317	Capsicum annuum
BAA20425.1	D89635	Nicotiana tabacum	AAF91308.1	AF239685	Rubus idaeus
CAA71243.1	Y10161	Chenopodium rubrum	AAF37733.1	AF052222	Lolium perenne
CAA53729.1	X76123	Antirrhinum majus	CAA31697.1	X13325	Petroselinum crispum
CAB58998.1	AJ250315	Petunia x hybrida	CAA31696.1	X13324	Petroselinum crispum
AAC41681.1	L34207	Petroselinum crispum	AAF37734.1	AF052223	Lolium perenne
CAB81558.1	Z37978	Nicotiana tabacum	AAC24503.1	AF041049	Populus tremuloides
CAA81232.1	Z26331	Glycine max	AAF91309.1	AF239686	Rubus idaeus
BAA09467.1	D50871	Glycine max	AAC39366.1	AF008184	Populus x generosa
AAC24244.1	U24192	Lupinus luteus	AAC39365.1	AF008183	Populus x generosa
AAD31788.1	AF126105	Lupinus luteus	AAB18637.1	U50845	Nicotiana tabacum
CAB46644.1	AJ243454	Lycopersicon esculentum	AAB18638.1	U50846	Nicotiana tabacum
CAA44188.1	X62303	Glycine max	BAA07828.1	D43773	Nicotiana tabacum
AAA20239.1	U10079	Zea mays	AAA33842.1	M62755	Solanum tuberosum
AAA20238.1	U10078	Zea mays	AAF91310.1	AF239687	Rubus idaeus
BAB00651.1	AP002804	Oryza sativa	AAD40664.1	AF150686	Solanum tuberosum
AAB72021.1	U66608	Zea mays	AAB42383.1	U39405	Pinus taeda
AAB72020.1	U66607	Zea mays	AAB42382.1	U39404	Pinus taeda
BAA33154.1	AB008189	Pisum sativum	AAA92669.1	U12013	Pinus taeda
AAB72019.1	U66662	Zea mays	AAA92668.1	U12012	Pinus taeda
BAA86629.1	AB024987	Oryza sativa	BAA08365.1	D49366	Lithospermum erythrorhizon
CAA57556.1	X82036	Oryza sativa	CAA36850.1	X52623	Oryza sativa
AAA20236.1	U10076	Zea mays	AAF73997.2	AF144504	Picea smithiana
CAA55272.1	X78504	Medicago sativa	AAF73995.2	AF144502	Pinus armandii
CAA48675.1	X68741	Medicago sativa	AAF73994.2	AF144501	Pinus armandii

AAF73998.2	AF144505	Cathaya argyrophylla	CAA09419.1	AJ010942	Lycopersicon esculentum
AAD40665.1	AF150687	Solanum tuberosum	CAB06079.1	283829	Picea abies
AAF73996.2	AF144503	Pinus armandii	BAB19862.1	AB052883	Oryza sativa
CAA49575.1	X69954	Glycine max	BAA85398.1	AP000615	Oryza sativa
AAF74004.2	AF144511	Pseudotsuga sinensis	AAD55054.1	AF173655	Beta vulgaris
AAF74016.2	AF144523	Nothotsuga longibracteata	CAB52688.1	AJ132223	Lycopersicon esculentum
AAF74001.2	AF144508	Pseudotsuga menziesii	CAB52690.1	AJ132225	Lycopersicon esculentum
AAF74002.2	AF144509	Pseudotsuga sinensis	SEQ ID NO. 796		
AAF74019.2	AF144526	Tsuga canadensis	CAA58994.1	X84208	Sinapis alba
AAF74018.2	AF144525	Tsuga canadensis	CAA76116.1	Y16190	Sinapis alba
AAF74003.2	AF144510	Pseudotsuga sinensis			
AAF73999.2	AF144506	Pseudotsuga menziesii	SEQ ID NO. 799		
AAF74022.2	AF144529	Cedrus atlantica	AAB61708.1	U93048	Daucus carota
AAF73993.2	AF144500	Pinus banksiana	AAG52992.1	U77888	Ipomoea nil
AAF73992.1	AF144499	Pinus banksiana	BAA84787.1	AP000559	Oryza sativa
AAF74007.2	AF144514	Abies firma	CAC20842.1	AJ250467	Pinus sylvestris
AAA64913.1	U23787	Sorghum bicolor	AAB36558.1	U77888	Ipomoea nil
CAB97359.1	AJ278455	Juglans nigra	AAK21965.1	AY028699	Brassica napus
AAF74000.2	AF144507	Pseudotsuga menziesii	CAA61510.1	X89226	Oryza sativa
SEQ ID NO. 791			AAF59906.1	AF197947	Glycine max
AAB09756.1	U31097	Glycine max	AAF59905.1	AF197946	Glycine max
			AAG03090.1	AC073405	Oryza sativa
SEQ ID NO. 795			AAC36318.1	AF053127	Malus x domestica
AAG43998.1	AF215837	Apium graveolens var. dulce	AAA33915.1	L27821	Oryza sativa
CAA47324.1	X66856	Nicotiana tabacum	AAG00510.1	AF285172	Phaseolus vulgaris
AAB06594.1	U38651	Medicago truncatula	AAF34426.1	AF172282	Oryza sativa
BAB19864.1	AB052885	Oryza sativa	AAD21872.1	AF078082	Phaseolus vulgaris
CAA53192.1	X75440	Chlorella kessleri	AAG52994.1	U77888	Ipomoea nil
AAF74565.1	AF215851	Spinacia oleracea	BAA92954.1	AP001551	Oryza sativa
CAA68813.1	Y07520	Chlorella kessleri	AAG16628.1	AY007545	Brassica napus
CAA04511.1	AJ001061	Vitis vinifera	BAA94509.1	AB041503	Populus nigra
CAB07812.1	Z93775	Vicia faba	BAA82556.1	AB030083	Populus nigra
CAA39036.1	X55349	Chlorella kessleri	BAA94510.1	AB041504	Populus nigra
AAF74567.1	AF215853	Solanum tuberosum	AAF34428.1	AF172282	Oryza sativa
AAF74566.1	AF215852	Nicotiana tabacum	BAA94529.2	AP001800	Oryza sativa
AAF74568.1	AF215854	Zea mays	AAB82755.1	U72725	Oryza longistaminata
AAA79761.1	L08196	Ricinus communis	AAB93834.1	U82481	Zea mays
BAB19863.1	AB052884	Oryza sativa	SEQ ID NO. 800		
CAB52689.1	AJ132224	Lycopersicon esculentum	CAB38030.1	AJ010201	Glycine max
CAA70777.1	Y09590	Vitis vinifera			

AAC19381.1	AF068844	Prunus persica	BAA20365.1	AB004307	Nicotiana tabacum
SEQ ID NO. 801			BAA07479.1	D38445	Oryza sativa
CAB38030.1	AJ010201	Glycine max	BAA02248.1	D12815	Oryza sativa
AAC19381.1	AF068844	Prunus persica	BAA04232.1	D17410	Oryza sativa
SEQ ID NO. 802			BAA90642.1	AF001129	Oryza sativa
CAA70968.1	Y09825	Solanum tuberosum	BAA85425.1	AF000616	Oryza sativa
AAD16013.1	AF080542	Nepenthes alata	BAA04616.1	D17790	Oryza sativa
CAA07563.1	AJ007574	Ricinus communis	AAB40034.1	U10418	Zea mays
CAA10608.1	AJ132228	Ricinus communis	CAA67796.1	X99419	Pisum sativum
CAA70778.1	Y09591	Vicia faba	AAK09367.1	AF321525	Pisum sativum
CAA70969.1	Y09826	Solanum tuberosum	AAK09370.1	AF321528	Pisum sativum
AAD16014.1	AF080543	Nepenthes alata	AAK09369.1	AF321527	Pisum sativum
CAA72006.1	Y11121	Ricinus communis	AAK09368.1	AF321526	Pisum sativum
AAD16015.1	AF080544	Nepenthes alata	SEQ ID NO. 804		
AAF15944.1	AF061434	Vicia faba	BAA82107.1	AB022693	Nicotiana tabacum
CAA92992.1	268759	Ricinus communis	AAC31956.1	AF080595	Pimpinella brachycarpa
AAF15945.1	AF061435	Vicia faba	AAC49527.1	U48831	Petroselinum crispum
AAF15946.1	AF061436	Vicia faba	AAD55974.1	AF121353	Petroselinum crispum
AAB96830.1	U64823	Nicotiana sylvestris	BAA77383.1	AB020590	Nicotiana tabacum
AAB48944.1	U31932	Nicotiana sylvestris	CAA88326.1	Z48429	Avena fatua
BAA93437.1	AB022783	Oryza sativa	BAA86031.1	AB026890	Nicotiana tabacum
CAB42599.1	AJ238635	Chlorella protothecoides	AAD16139.1	AF096299	Nicotiana tabacum
SEQ ID NO. 803			AAC37515.1	I44134	Cucumis sativus
CAA81210.1	Z26251	Helianthus tuberosus	AAE23698.1	AF193802	Oryza sativa
AAB02721.1	U58629	Helianthus tuberosus	AAC49529.1	U58540	Petroselinum crispum
CAC27143.1	AJ132538	Picea abies	AAD16138.1	AF096298	Nicotiana tabacum
AA79131.1	U10545	Chlamydomonas reinhardtii	AAC49528.1	U56834	Petroselinum crispum
CAA55406.1	X78851	Chlamydomonas reinhardtii	BAB16432.1	AB041520	Nicotiana tabacum
AAB40978.1	U22328	Volvox carteri	BAA77358.1	AB020023	Nicotiana tabacum
AA433029.1	M25528	Mesembryanthemum crystallinum	CAA88331.1	Z48431	Avena fatua
CAA30978.1	X12446	Pisum sativum	AAC35658.1	AF204925	Petroselinum crispum
BAA13417.1	D87547	Oryza sativa	AAD27591.1	AF121354	Petroselinum crispum
AAA21758.1	U14956	Vicia faba	AAC35659.1	AF204926	Petroselinum crispum
AAA34029.1	M86349	Spinacia oleracea	CAB66338.1	AJ279697	Betula pendula
CAB71293.1	AJ250378	Capsicum annuum	AAF61864.1	AF193771	Nicotiana tabacum
CAA74359.1	Y14032	Nicotiana tabacum	AAF61863.1	AF193770	Nicotiana tabacum
BAA88236.1	AB035644	Zea mays	SEQ ID NO. 806		
BAA88237.1	AB035645	Zea mays	CAB52689.1	AJ132224	Lycopersicon esculentum
			CAA09419.1	AJ010942	Lycopersicon esculentum

CAB06079.1	283829	Picea abies	AAG02208.1	AF290201	Solanum chacoense
BAB19864.1	AB052885	Oryza sativa	AAA99274.1	L77969	Spinacia oleracea
CAA47324.1	X66856	Nicotiana tabacum	CAB07783.1	Z93764	Picea abies
AAA79857.1	L08188	Ricinus communis	AAA68701.1	U26538	Mesembryanthemum crystalli
AAA79761.1	L08196	Ricinus communis	AGC23179.1	AF299050	Brassica oleracea
CAA04511.1	AJ001061	Vitis vinifera	BAA92258.1	AB030695	Raphanus sativus
AAB06594.1	U38651	Medicago truncatula	AAG23180.1	AF299051	Brassica oleracea
CAA70777.1	Y09590	Vitis vinifera	AAAB61378.1	AF004293	Brassica rapa
BAB19863.1	AB052884	Oryza sativa	BAA92259.1	AB030696	Raphanus sativus
BAA83554.1	AP000399	Oryza sativa	CAB93959.1	AJ289701	Vicia faba
CAA53192.1	X75440	Chlorella kessleri	AAB09757.1	U26537	Mesembryanthemum crystalli
CAAG68813.1	Y07520	Chlorella kessleri	BAR32777.1	AB012044	Raphanus sativus
CAA39036.1	X55349	Chlorella kessleri	SEQ ID NO. 808		
BAB19862.1	AB052883	Oryza sativa	AAK21965.1	AY028699	Brassica napus
CAB52690.1	AJ132225	Lycopersicon esculentum	BAA92836.1	AB032473	Brassica oleracea
CAB52688.1	AJ132223	Lycopersicon esculentum	AAB51708.1	U93048	Daucus carota
AAD55054.1	AF173655	Beta vulgaris	BAR23676.1	AB000970	Brassica rapa
AAAG43998.1	AF215837	Apium graveolens var. dulce	AAD21872.1	AF078082	Phaseolus vulgaris
AAF74565.1	AF215851	Spinacia oleracea	CAB41878.1	Y18259	Brassica oleracea
AAF74568.1	AF215854	Zea mays	AAAG2232.1	U00443	Brassica napus
AAF74567.1	AF215853	Solanum tuberosum	CAA33000.1	M76647	Brassica oleracea
AAF74566.1	AF215852	Nicotiana tabacum	CAB41879.1	Y18260	Brassica oleracea
AAD37424.1	AF149282	Phaseolus vulgaris	CAA73134.1	Y12531	Brassica oleracea
AAD45934.1	AF168773	Betula pendula	BAA06285.1	D30049	Brassica rapa
SEQ ID NO. 807			BAA21132.1	D88193	Brassica rapa
AAC17529.1	AF067185	Samanea saman	CAB89179.1	AJ245479	Brassica napus subsp. napus
AAB18227.1	U73466	Mesembryanthemum crystallinum	AAA33008.1	M97667	Brassica napus
BAA92260.1	AB030697	Raphanus sativus	CAA67145.1	X98520	Brassica oleracea
BAA32778.1	AB012045	Raphanus sativus	CAA73133.1	Y12530	Brassica oleracea
BAA92261.1	AB030698	Raphanus sativus	AAF66615.1	AF142596	Nicotiana tabacum
AAD31846.1	AF133530	Mesembryanthemum crystallinum	AAF76314.1	AF220603	Lycopersicon esculentum
AAC16545.1	AF062393	Oryza sativa	AAK11568.1	AF318492	Lycopersicon hirsutum
AAF65845.1	AF255795	Allium cepa	CAA74662.1	Y14286	Brassica oleracea
CAB67868.1	U60147	Beta vulgaris	AAB47424.1	U59317	Lycopersicon pimpinellifolium
AAB46351.1	Y18312	Solanum tuberosum	AAB47422.1	U59318	Lycopersicon esculentum
AAC32107.1	AF051202	Picea mariana	AAF76307.1	AF220602	Lycopersicon pimpinellifolium
AAB67869.1	U60148	Beta vulgaris	BAA07576.1	D38563	Brassica rapa
AAAB6991.1	U18403	Atriplex canescens	AAG16628.1	AY007545	Brassica napus
AAG30607.1	AF314656	Brassica oleracea	CAA97692.1	Z73295	Catharanthus roseus
AAB18228.1	U73467	Mesembryanthemum crystallinum	CAA79355.1	Z18921	Brassica oleracea

AA933834.1	U82481	Zea mays	CAA61198.1	X87946	Oryza sativa
BAA92837.1	AB032474	Brassica oleracea	CAA41169.1	X58180	Medicago sativa
AAA33915.1	L27821	Oryza sativa	BAA00887.1	D10003	Pisum sativum
SEQ ID NO. 809			BAA00886.1	D10002	Pisum sativum
AAE19196.1	AF206320	Musa acuminata	AAA17993.1	M91192	Trifolium subterraneum
AAE19195.1	AF206319	Musa acuminata	AAA33805.1	L11747	Populus x generosa
AAE63756.1	AF243475	Vitis vinifera	AAE78457.1	AF036948	Prunus avium
CAA70735.1	Y09541	Zinnia elegans	BAA23367.1	D85850	Daucus carota
CAA63496.1	X92943	Musa acuminata	CAB42793.1	AJ238753	Citrus clementina x Citrus
AB71208.1	U63550	Fragaria x ananassa	reticulata		
AAA86241.1	U41472	Medicago sativa	AAA99500.1	L36822	Stylosanthes humilis
CAA43414.1	X61102	Nicotiana tabacum	CAA55075.1	X78269	Nicotiana tabacum
CAA47630.1	X67158	Nicotiana tabacum	BAA22963.1	D17467	Nicotiana tabacum
CAA43413.1	X61101	Nicotiana tabacum	BAA22947.1	AB008199	Nicotiana tabacum
CAA47631.1	X67159	Nicotiana tabacum	CAA57057.1	X81159	Petroselinum crispum
SEQ ID NO. 810			AAG49585.1	AF325496	Ipomoea nil
AAG49551.1	AF264022	Poa secunda	CAA57056.1	X81158	Petroselinum crispum
CAA44598.1	X62724	Hordeum vulgare	CAB42794.1	AJ238754	Citrus clementina x Citrus
AB88619.1	AF034948	Zea mays	reticulata		
CAA44599.1	X62725	Hordeum vulgare	CAA05251.1	AJ002221	Digitalis lanata
SEQ ID NO. 813			BAA07860.1	D43802	Populus kitakamiensis
AAA34122.1	M84466	Nicotiana tabacum	CAB60719.1	AJ250836	Cicer arietinum
BAA22948.1	AB008200	Nicotiana tabacum	CAA68256.1	X99997	Bromheadia finlaysoniana
AAA34176.1	M90692	Lycopersicon esculentum	AAK15640.1	AF326116	Agastache rugosa
AAE40224.1	AF237955	Rubus idaeus	CAA34226.1	X16099	Oryza sativa subsp. japonica
CAA37129.1	X52953	Glycine max	AAF40223.1	AF237954	Rubus idaeus
CAA68036.1	X99705	Triticum aestivum	BAA11459.1	D78640	Ipomoea batatas
AAA33389.1	M29232	Ipomoea batatas	BAA06337.1	D30657	Populus kitakamiensis
AAA34179.2	M83314	Lycopersicon esculentum	AAD45384.1	AF165998	Vigna unguiculata
BAA21643.1	D30656	Populus kitakamiensis	CAA53733.1	X76130	Cucumis melo
AB67733.1	U43338	Citrus limon	AAA51873.1	U16130	Persea americana
BAA95629.1	AB042520	Catharanthus roseus	BAB19128.1	AB041361	Dianthus caryophyllus
BAA05643.1	D26596	Camellia sinensis	CAA34715.1	X16772	Petroselinum crispum
CAA73065.1	Y12461	Helianthus annuus	BAA07861.1	D43803	Populus kitakamiensis
BAA24929.1	D83076	Lithospermum erythrorhizon	SEQ ID NO. 814		
BAA24928.1	D83075	Lithospermum erythrorhizon	AAC39318.1	AF029858	Sorghum bicolor
BAA00885.1	D10001	Pisum sativum	AAA19701.1	L24438	Thlaspi arvense
AAA84889.1	U39792	Pinus taeda	BAB40323.1	AB037244	Asparagus officinalis
			AAA32913.1	M32885	Persea americana
			BAB40324.1	AB037245	Asparagus officinalis

AAB94589.1	AF022460	Glycine max	AAC49214.1	U39862	Oryza longistaminata
CAA70575.1	Y09423	Nepeta racemosa	AAC49213.1	U39864	Oryza eichingeri
AAF27282.1	AF122821	Capsicum annuum	AAC49220.1	U39866	Oryza sativa
AAB94584.1	AF022157	Glycine max	AAC49218.1	U39867	Oryza rufipogon
AAB94588.1	AF022459	Glycine max	SEQ ID NO. 818		
AAD47832.1	AF166332	Nicotiana tabacum	CAA04644.1	AJ001270	Phaseolus vulgaris
CAA50312.1	X70981	Solanum melongena	AAD20634.1	AF126255	Anchusa officinalis
BAA03635.1	D14990	Solanum melongena	BAA92365.1	AB039746	Spirodela punctata
CAA50645.1	X71654	Solanum melongena	AAF19821.1	AF200825	Ipomoea batatas
CAA70576.1	Y09424	Nepeta racemosa	CAA06921.1	AJ006224	Ipomoea batatas
BBB40322.1	AB036772	Triticum aestivum	AAF19822.1	AF200826	Ipomoea batatas
CAB56503.1	AJ238612	Catharanthus roseus	AAF19820.1	AF200824	Glycine max
AAD44150.1	AF124815	Mentha spicata	CAA07280.1	AJ006870	Ipomoea batatas
CAR83941.1	Z33875	Mentha x piperita	BAA97038.1	AB029086	Tagetes patula
AAD56282.1	AF155332	Petunia x hybrida	BAA97745.1	AB037887	Lupinus albus
AAD44152.1	AF124817	Mentha x piperita	BAA82130.1	AB023385	Lupinus albus
AAD37433.1	AF150881	Lycopersicon esculentum x	BAA82133.1	AB023388	Lycopersicon esculentum
Lycopersicon peruvianum			BAA82131.1	AB023386	Glycine max
AAD44151.1	AF124816	Mentha x piperita	BAA82132.1	AB023387	Oryza sativa
AAG44132.1	AF218296	Pisum sativum	SEQ ID NO. 819		
AAG14963.1	AF214009	Brassica napus	AAF76898.1	AF274033	Atriplex hortensis
CAR65580.1	X96784	Nicotiana tabacum	CAC12822.1	AJ299252	Nicotiana tabacum
AAG14961.1	AF214007	Brassica napus	AAF63205.1	AF245119	Mesembryanthemum crystallinum
AAG14962.1	AF214008	Brassica napus	BAA78738.1	AB023482	Oryza sativa
CAC27827.1	AJ295719	Catharanthus roseus	AAC24587.1	AF071893	Prunus armeniaca
CAA64635.1	X95342	Nicotiana tabacum	CAB96899.1	AJ251249	Catharanthus roseus
AAB17562.1	U72654	Eustoma grandiflorum	CAB96900.1	AJ251250	Catharanthus roseus
SEQ ID NO. 816			BAB16083.1	AB036883	Oryza sativa
AAD15818.1	AF061107	Zea mays	AAF23899.1	AF193803	Oryza sativa
AAC28907.1	U18349	Phaseolus vulgaris	BAA99376.1	AF002526	Oryza sativa
AAB00686.1	U18348	Phaseolus vulgaris	AAK01089.1	AF298231	Hordeum vulgare
AAC49219.1	U39860	Oryza sativa	SEQ ID NO. 820		
CAB92300.1	AJ251719	Zea mays	AAF03236.1	AF180143	Glycine max
CAA07615.1	AJ007709	Gerbera hybrida	AAA34309.1	M28059	Triticum aestivum
AAG25928.1	AF260919	Petunia x hybrida	AAB88617.1	AF034946	Zea mays
AAG25927.1	AF260918	Petunia x hybrida	AAA34125.1	I23762	Lycopersicon esculentum
AAC39455.1	AF020545	Petunia x hybrida	AAA64427.1	I29077	Pisum sativum
AAC49217.1	U39861	Oryza rufipogon	CAA51821.1	X73419	Lycopersicon esculentum
AAC49216.1	U39865	Oryza officinalis			
AAC49212.1	U39863	Oryza australiensis			

AAD511109.1	AF176040	Mesembryanthemum crystallinum	CAA04942.1	AJ001706	Pinus sylvestris
AAF73016.1	AF262934	Avicennia marina	CAA06030.1	AJ003783	Marsilea quadrifolia
AAD42941.1	AF091621	Catharanthus roseus	CAA55116.1	X78307	Craterostigma plantagineum
BAB40310.1	AB026055	Nicotiana tabacum	AAA33352.1	L26924	Ginkgo biloba
AAA34310.1	M62720	Triticum aestivum	CAB39974.1	AJ133422	Nicotiana tabacum
BAB40311.1	AB026056	Nicotiana tabacum	CAA42901.1	X60343	Hordeum vulgare
AAB02168.1	U15971	Oryza sativa	AAA87880.1	U45858	Zea mays
CAA58111.1	X82938	Lycopersicon esculentum	AAA87578.1	U45855	Zea mays
AAA86089.1	U17250	Brassica oleracea	CAA51676.1	X73151	Zea mays
AAG23847.1	AY004247	Lycopersicon esculentum	AAA33779.1	L07501	Pinus sylvestris
BAA90392.1	AP001081	Oryza sativa	AAB59010.1	U96623	Selaginella lepidophylla
AAF22280.1	AF165420	Mesembryanthemum crystallinum	CAA42902.1	X60344	Petroselinum crispum
AAC12662.1	AF032468	Zea mays	CAA42905.1	X60347	Magnolia liliiflora
CAAO5772.1	AJ002959	Zea mays	CAA51071.1	X72381	Physcomitrella patens
AAB63513.1	AF008910	Prunus armeniaca	AAA82047.1	U31676	Oryza sativa
BAA21006.1	D17786	Oryza sativa	AAA33033.1	J05223	Mesembryanthemum crystallinum
CAA10494.1	AJ131733	Pseudotsuga menziesii	AAA33031.1	M29956	Mesembryanthemum crystallinum
SEQ ID NO. 821			CAA51675.1	X73150	Pisum sativum
AAF04624.1	AF098672	Brassica oleracea	AAA33667.1	L07500	Pisum sativum
AAB88615.1	AF034944	Zea mays	CAA42903.1	X60345	Ranunculus acris
AAC67556.1	AF094774	Oryza sativa	AAA34077.1	M14419	Nicotiana tabacum
AAC61599.1	AF091857	Pimpinella brachycarpa	AAA03442.1	U02886	Atriplex nummularia
SEQ ID NO. 822			CAA42904.1	X60346	Petunia x hybrida
CAB65313.1	AJ251365	Nicotiana plumbaginifolia	CAA42103.1	X59517	Antirrhinum majus
SEQ ID NO. 823			CAA53269.1	X75597	Atriplex nummularia
CAA07020.1	AJ006414	Lycopersicon esculentum	AAA89207.1	L26922	Taxus baccata
AAD02231.1	AF043108	Pisum sativum	AAA87579.1	U45856	Zea mays
CAB61629.1	AJ251298	Oryza sativa	AAA87580.1	U45857	Zea mays
BAA29033.1	AB015599	Coffea arabica	AAB07758.1	U17005	Solanum tuberosum
BAA24535.1	AB006692	Nicotiana sylvestris	AAB54003.1	U97257	Lycopersicon esculentum
AAD02232.1	AF043109	Pisum sativum	AAA32956.1	M36650	Hordeum vulgare
SEQ ID NO. 826			AAB51592.1	U93208	Lycopersicon esculentum
AAB57845.1	U96718	Selaginella lepidophylla	AAA33466.1	L13432	Zea mays
SEQ ID NO. 827			AAF64241.1	AF251217	Triticum aestivum
AAD10215.1	L32560	Chloroplast Pinus sylvestris	AAA33465.1	L13431	Zea mays
AAD10214.1	L32561	Chloroplast Pinus sylvestris	AAA334076.1	M14418	Nicotiana tabacum
			AAA84543.1	M55147	Chloroplast Pisum sativum
			BAA85402.1	AP000615	Oryza sativa
			AAA86855.1	L27668	Chloroplast Chlamydomonas
			reinhardtii		
			CAA33455.1	X15408	Zea mays

[illegible]



[illegible]



AAB37746.1	U30382	Cucumis sativus	SEQ ID NO. 846	Zea mays
AAD47901.1	AF085330	Pinus taeda	AAD46491.1	Oryza sativa
AAF32409.1	AF230276	Triphysaria versicolor	BAA90623.1	Zea mays
AAG13983.1	AF297522	Prunus avium	AAA52202.1	Lithospermum erythrorhizon
AAC39512.1	AF043284	Gossypium hirsutum	BAA77024.1	
AAB40637.1	U64893	Pinus taeda		
AAC96081.1	AF049354	Nicotiana tabacum	SEQ ID NO. 848	
AAB40634.1	U64890	Pinus taeda	CAC24691.1	Brassica juncea
AAB40635.1	U64891	Pinus taeda	AAG17172.1	Populus tremula x Populus
AAB40636.1	U64892	Pinus taeda	tremuloides	
AAC64201.1	AF096776	Lycopersicon esculentum	AAC39514.1	Oryza sativa
CAB43197.1	AJ239068	Lycopersicon esculentum		
AAB81662.1	U85246	Oryza sativa	SEQ ID NO. 849	
AAD49956.1	AF167360	Rumex palustris	AAG22044.1	Pisum sativum
AAC96080.1	AF049353	Nicotiana tabacum	AAF00610.1	Dolichos biflorus
AAF17570.1	AF202119	Marsilea quadrifolia	AAG32959.1	Glycine soja
AAF35902.1	AF230333	Zinnia elegans	AAG32960.1	Glycine soja
AAG32921.1	AF184233	Lycopersicon esculentum	AAF00609.1	Lotus japonicus
AAB38074.1	U30477	Oryza sativa	AAD31285.1	Dolichos biflorus
AAF32411.1	AF230278	Triphysaria versicolor	AAF00611.1	Medicago sativa
AAF17571.1	AF202120	Regnellidium diphyllum	BAB18896.1	Pisum sativum
AAF62181.1	AF247163	Oryza sativa	BAB18895.1	Pisum sativum
CAC19183.1	AJ291816	Cicer arietinum	BAB18894.1	Pisum sativum
AAD13633.1	AF059489	Lycopersicon esculentum	BAB18893.1	Pisum sativum
AAF62180.1	AF247162	Oryza sativa	BAB18900.1	Pisum sativum
BAB32732.1	AB049406	Eustoma grandiflorum	BAB40230.1	Pisum sativum
CAC06433.1	AJ276007	Festuca pratensis	BAB18890.1	Pisum sativum
AAG01875.1	AF291659	Striga asiatica	BAA75506.1	Pisum sativum
AAC96077.1	AF049350	Nicotiana tabacum	BAA99275.1	Pisum sativum
AAC96079.1	AF049352	Nicotiana tabacum	BAB40231.1	Pisum sativum
CAB55694.1	AJ270960	Lycopersicon esculentum	AAB02720.1	Solanum tuberosum
AAG32920.1	AF184232	Lycopersicon esculentum	BAB18891.1	Pisum sativum
AAC96078.1	AF049351	Nicotiana tabacum	BAB18892.1	Pisum sativum
AAG01873.1	AF291657	Striga asiatica		
SEQ ID NO. 844			SEQ ID NO. 857	
AAD19957.1	AF109156	Datisca glomerata	AAG43988.1	Zea mays
			BAB19052.1	Oryza sativa
SEQ ID NO. 845			AAF73828.1	Oryza sativa
AAD19957.1	AF109156	Datisca glomerata	BAA96793.1	Oryza sativa
			BAA96794.1	Oryza sativa
			AAA34025.1	Spinacia oleracea

AAB41696.1	U69142	Spinacia oleracea	CAC21393.1	AJ401276	Zea mays
BAB18544.1	AB043540	Avicennia marina	AAA65636.1	L13653	Lycopersicon esculentum
CAA71003.1	Y09876	Nicotiana tabacum	CAB67121.1	Y19023	Lycopersicon esculentum
CAA41377.1	X58463	Beta vulgaris	CAA62227.1	X90694	Medicago sativa
CAA49425.1	X69770	Atriplex hortensis	CAA50597.1	X71593	Lycopersicon esculentum
AAB70010.1	AF017150	Amaranthus hypochondriacus	AAD37376.1	AF145350	Glycine max
CAA41376.1	X58462	Beta vulgaris	AAB67737.1	L77080	Stylosanthes humilis
AAB58165.1	AF000132	Amaranthus hypochondriacus	CAA71489.1	Y10463	Spinacia oleracea
BAA21098.1	AB001348	Oryza sativa	CAA71496.1	Y10470	Spinacia oleracea
BAB18543.1	AB043539	Avicennia marina	CAA71494.1	Y10468	Spinacia oleracea
AAC03055.1	AF045770	Oryza sativa	BAA06334.1	D30652	Populus kitakamiensis
CAA53076.1	X75327	Pisum sativum	CAA66034.1	X97348	Populus balsamifera subsp.
BAA05466.1	D26448	Hordeum vulgare	trichocarpa		
AAF08296.1	AF196292	Apium graveolens	BAA94962.1	AB042103	Asparagus officinalis
AAB47571.1	U87848	Nicotiana glauca	CAA80502.1	Z22920	Spirodela polyrrhiza
AAG43027.1	AF323586	Oryza sativa	CAA66035.1	X97349	Populus balsamifera subsp.
AAB33843.1	S77096	Brassica napus	trichocarpa		
CAA53075.1	X75326	Zea mays	BAA11852.1	D83224	Populus nigra
			CAA66036.1	X97350	Populus balsamifera subsp.
			trichocarpa		
SEQ ID NO. 858			BAA07241.1	D38051	Populus kitakamiensis
AAB41812.1	L36158	Medicago sativa	AAD11481.1	U51191	Glycine max
CAA71495.1	Y10469	Spinacia oleracea	AAC98519.1	AF007211	Glycine max
CAA09881.1	AJ011939	Trifolium repens	AAA32973.1	M73234	Hordeum vulgare
CAA62228.1	X90695	Medicago sativa	AAB47602.1	L07554	Linum usitatissimum
AAA98491.1	L36981	Petroselinum crispum	AAB41810.1	L36156	Medicago sativa
AAB02926.1	U59284	Linum usitatissimum	AAF63027.1	AF244924	Spinacia oleracea
BAA77387.1	AB024437	Scutellaria baicalensis	AAA34108.1	J02979	Nicotiana tabacum
CAA66037.1	X97351	Populus balsamifera subsp.	AAD43561.1	AF155124	Gossypium hirsutum
			trichocarpa		
CAA71488.1	Y10462	Spinacia oleracea	SEQ ID NO. 859		
BAA01950.1	D11337	Vigna angularis	CAA06339.1	AJ005082	Cyamopsis tetragonoloba
BAA14143.1	D90115	Armoracia rusticana	AAA86532.1	U31544	Pisum sativum
CAA71490.1	Y10464	Spinacia oleracea	CAA06338.1	AJ005081	Cyamopsis tetragonoloba
CAB94692.1	AJ242742	Ipomoea batatas	CAC14890.1	AJ295156	Phragmites australis
BAA92497.1	AF001383	Oryza sativa	CAB61752.1	AJ275318	Cicer arietinum
AAC36707.1	AF078691	Manihot esculenta	BAB40967.1	AB059568	Pisum sativum
BAA92422.1	AF001366	Oryza sativa	AAB68605.1	U82433	Prunus armeniaca
CAA62226.1	X90693	Medicago sativa	SEQ ID NO. 860		
AAF63024.1	AF244921	Spinacia oleracea	AAF98390.1	AF287143	Brassica napus
AAA32676.1	M37637	Arachis hypogaea			
BAA11853.1	D83225	Populus nigra			

BAA93039.1	AB033758	Citrus unshiu	CAA30261.1	X07280	Nicotiana plumbaginifolia
AAF61647.1	AF190634	Nicotiana tabacum	AAA51643.1	M23120	Nicotiana plumbaginifolia
BAA89009.1	AB027455	Petunia x hybrida	AAA34078.1	M63634	Nicotiana plumbaginifolia
AAA59054.1	L34847	Zea mays	AAB82772.2	AF001523	Musa acuminata
BAA36423.1	AB013598	Verbena x hybrida	AAF08679.1	AF004838	Musa acuminata
BAA36421.1	AB013596	Perillia frutescens	AAD10383.1	U72252	Oryza sativa
AAF17077.1	AF199453	Sorghum bicolor	AAD28732.1	AF112965	Triticum aestivum
BAA36422.1	AB013597	Perillia frutescens	AAA63539.1	M60402	Nicotiana tabacum
BAA83484.1	AB031274	Scutellaria baicalensis	AAA63541.1	M59442	Nicotiana tabacum
AAB36652.1	U32643	Nicotiana tabacum	AAA63540.1	M60403	Nicotiana tabacum
AAK28304.1	AF346432	Nicotiana tabacum	AAA32939.1	M62907	Hordeum vulgare
AAB36653.1	U32644	Nicotiana tabacum	AAC14399.1	AF030771	Hordeum vulgare
AAK28303.1	AF346431	Nicotiana tabacum	AAA87456.1	U22147	Hevea brasiliensis
CAA59450.1	X85138	Lycopersicon esculentum	BAA77784.1	AB027429	Oryza sativa
AAD21086.1	AF127218	Forsythia x intermedia	BAA77785.1	AB027430	Oryza sativa
CAB56231.1	Y18871	Dorotheanthus bellidiformis	CAB91554.1	AJ277900	Vitis vinifera
BAA19659.1	AB002818	Perillia frutescens	AAD10381.1	U72250	Oryza sativa
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	AAA33946.1	M37753	Glycine max
BAB41023.1	AB047096	Vitis vinifera	AAD33881.1	AF141654	Nicotiana tabacum
BAB41021.1	AB047094	Vitis vinifera	AAB86541.1	AF030166	Oryza sativa
BAB41019.1	AB047092	Vitis vinifera	AAD10384.1	U72253	Oryza sativa
BAB41022.1	AB047095	Vitis vinifera	CAB38443.1	AJ133470	Hevea brasiliensis
BAB41020.1	AB047093	Vitis vinifera	AAB03501.1	U41323	Glycine max
BAB41026.1	AB047099	Vitis vinifera	AAA18928.1	U01901	Solanum tuberosum
BAB41025.1	AB047098	Vitis vinifera	AAA88794.1	U01900	Solanum tuberosum
BAB41024.1	AB047097	Vitis vinifera	AAC19114.1	AF067863	Solanum tuberosum
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	AAG24921.1	AF311749	Hevea brasiliensis
AAB81682.1	AF000371	Vitis vinifera	CAA03908.1	AJ000081	Citrus sinensis
AAB81683.1	AF000372	Vitis vinifera	CAA37289.1	X53129	Phaseolus vulgaris
BAA90787.1	AB038248	Ipomoea batatas	CAA57255.1	X81560	Nicotiana tabacum
AAB86473.1	AF028237	Ipomoea purpurea			
BAA12737.1	D85186	Gentiana triflora			
BAA89008.1	AB027454	Petunia x hybrida			
SEQ ID NO. 861					
AAD10386.1	U72255	Oryza sativa	CAA08798.1	AJ0009720	Solanum tuberosum
BAA89481.1	AB029462	Salix gilgiana	AAK28810.1	AF310964	Linum usitatissimum
CAB85903.1	AJ251646	Pisum sativum	AAA50763.1	U15605	Nicotiana glutinosa
CAA49513.1	X69887	Brassica napus	AAK28812.1	AF310968	Linum usitatissimum
AAA90953.1	U30323	Triticum aestivum	AAK28806.1	AF310960	Linum usitatissimum
CAA82271.1	Z28697	Nicotiana tabacum	AAK28811.1	AF310966	Linum usitatissimum
			AAG09951.1	AF175388	Glycine max
			AAK28809.1	AF310962	Linum usitatissimum
			AAK28808.1	AF310961	Linum usitatissimum

AAK28805.1	AF310960	Linum usitatissimum	AAD25300.1	AF088276	Lycopersicon esculentum
AAK28803.1	AF310958	Linum usitatissimum	CAA63704.1	X93301	Oryza sativa
AAK28804.1	AF310959	Linum usitatissimum	AAD24966.1	AF109150	Lycopersicon esculentum
CAC35321.1	AJ310150	Linum usitatissimum	AAD25225.1	AF088279	Potamogeton crispus
CAC35327.1	AJ310152	Linum usitatissimum	SEQ ID NO. 864		
AAG09953.1	AF175398	Glycine max	AAC12662.1	AF032468	Zea mays
CAC35332.1	AJ310157	Linum usitatissimum	CAA05772.1	AJ002959	Zea mays
AAD25973.1	AF093646	Linum usitatissimum	AAA34310.1	M62720	Triticum aestivum
CAC35337.1	AJ310162	Linum usitatissimum	AAF73016.1	AF262934	Avicennia marina
CAC35325.1	AJ310150	Linum usitatissimum	BAB40310.1	AB026055	Nicotiana tabacum
CAC35336.1	AJ310161	Linum usitatissimum	BAB40311.1	AB026056	Nicotiana tabacum
CAC35328.1	AJ310153	Linum usitatissimum	AAA34125.1	L23762	Lycopersicon esculentum
CAC35330.1	AJ310155	Linum usitatissimum	AAB88617.1	AF034946	Zea mays
CAC35333.1	AJ310158	Linum usitatissimum	CAA51821.1	X73419	Lycopersicon esculentum
CAC35339.1	AJ310164	Linum usitatissimum	AAD51109.1	AF176040	Mesembryanthemum crystallinum
CAC35338.1	AJ310163	Linum usitatissimum	AAA64427.1	L29077	Pisum sativum
CAC35329.1	AJ310154	Linum usitatissimum	AAD42941.1	AF091621	Catharanthus roseus
CAC35331.1	AJ310156	Linum usitatissimum	AAB02168.1	U15971	Oryza sativa
CAC35334.1	AJ310159	Linum usitatissimum	BAA90392.1	AP001081	Oryza sativa
CAC35326.1	AJ310151	Linum usitatissimum	AAB63513.1	AF008910	Prunus armeniaca
CAC35323.1	AJ310150	Linum usitatissimum	AAA86089.1	U17250	Brassica oleracea
AAG09952.1	AF175389	Glycine max	CAA10494.1	AJ131733	Pseudotsuga menziesii
AAG43546.1	AF211528	Nicotiana tabacum	CAA58111.1	X82938	Lycopersicon esculentum
AAD25967.1	AF093640	Linum usitatissimum	AAG23847.1	AY004247	Lycopersicon esculentum
AAD25970.1	AF093643	Linum usitatissimum	AAF22280.1	AF165420	Mesembryanthemum crystallinum
AAD25966.1	AF093639	Linum usitatissimum	AAA34309.1	M28059	Triticum aestivum
AAD25971.1	AF093644	Linum usitatissimum	BAA21006.1	D17786	Oryza sativa
AAD25965.1	AF093638	Linum usitatissimum	AAF03236.1	AF180143	Glycine max
AAB47618.1	U73916	Linum usitatissimum	AAC32141.1	AF051240	Picea mariana
CAA08797.1	AJ009719	Solanum tuberosum	SEQ ID NO. 865		
AAD25968.1	AF093641	Linum usitatissimum	CAA65735.1	X97012	Solanum tuberosum
AAD25974.1	AF093647	Linum usitatissimum	SEQ ID NO. 866		
AAD25975.1	AF093648	Linum usitatissimum	CAA63056.1	X92075	Solanum tuberosum
AAA91022.1	U27081	Linum usitatissimum	AAF15291.1	AF201458	Medicago sativa
AAD25972.1	AF093645	Linum usitatissimum	CAA43167.1	X60755	Cicer arietinum
AAD25969.1	AF093642	Linum usitatissimum	SEQ ID NO. 867		
AAD25976.1	AF093649	Linum usitatissimum	AAD02558.1	AF049933	Petunia x hybrida
AAA91021.1	U27081	Linum usitatissimum			
AAG01052.1	AF175395	Glycine max			
SEQ ID NO. 863					

SEQ ID NO. 870	CAA55047.1	X78213	Parthenium argentatum	CAA49463.1	X69805	Solanum tuberosum
CAA60251.1	X86553		Zea mays	CAA70038.1	Y08786	Solanum tuberosum
AAD11459.1	U62748		Zea mays	AAB17086.1	U66376	Triticum aestivum
AAC49360.1	U29383		Zea mays	AAB67316.1	U65948	Zea mays
AAB71080.1	U62753		Zea mays	BAB40334.1	AB042937	Ipomoea batatas
AAD11446.1	U62749		Zea mays	BAA01584.1	D10752	Oryza sativa
AAD11447.1	U62750		Zea mays	AAD28284.1	AF136268	Oryza sativa subsp. japoni
AAA91168.1	U40147		Zea mays	BAA01616.1	D10838	Oryza sativa
AAB71079.1	U62752		Zea mays	BAA01855.1	D11082	Oryza sativa
AAB71078.1	U62751		Zea mays	CAB40981.1	AJ237897	Triticum aestivum
BAA92988.1	AP001550		Oryza sativa	CAB40979.1	AJ237897	Triticum aestivum
CAA47042.1	X66411	Chlamydomonas reinhardtii		CAB40980.1	AJ237897	Triticum aestivum
AAB63814.1	L46848	Glycine max		AAG27622.1	AF286318	Triticum aestivum
SEQ ID NO. 872	CAB40743.1	AJ011885	Solanum tuberosum	CAA54308.1	X77012	Manihot esculenta
CAB40746.1	AJ011888		Solanum tuberosum	CAA72987.1	Y12320	Triticum aestivum
CAB40748.1	AJ011890		Solanum tuberosum	AAG27621.1	AF286317	Triticum aestivum
AAD30186.1	AF076679		Triticum aestivum	BAA82349.1	AB029549	Phaseolus vulgaris
AAD30187.1	AF076680		Aegilops tauschii	AAB61925.1	AF002820	Triticum aestivum
BAA82348.1	AB029548		Phaseolus vulgaris	CAB40749.1	AJ011891	Solanum tuberosum
CAA56319.1	X80009		Pisum sativum	CAB40745.1	AJ011887	Solanum tuberosum
CAB40747.1	AJ011889		Solanum tuberosum	CAB40744.1	AJ011886	Solanum tuberosum
CAA03846.1	AJ000004		Solanum tuberosum	BAA85762.1	AB028067	Nicotiana tabacum
BAA03738.1	D16201		Oryza sativa	CAA49371.1	X69713	Manihot esculenta
AAG27623.1	AF286319		Triticum aestivum	BAB40335.1	AB042940	Ipomoea batatas
CAA72154.1	Y11282		Triticum aestivum	CAA49370.1	X69712	Manihot esculenta
AAK26821.1	AF338431		Aegilops tauschii	AAC72336.1	AF064563	Hordeum vulgare
AAK26822.1	AF338432		Triticum aestivum	SEQ ID NO. 873		
AAC33764.1	AF072725		Zea mays	AAA19571.1	U10150	Brassica napus
AAA18571.1	L08065		Zea mays	AAD10244.1	AF030032	Phaseolus vulgaris
BAA82828.1	AB023498		Oryza sativa	AAA85157.1	U20297	Solanum tuberosum
AAC69753.1	AF064560		Hordeum vulgare	AAA85156.1	U20296	Solanum tuberosum
CAA56320.1	X80010		Pisum sativum	AAA62351.1	U20295	Solanum tuberosum
AAC69754.1	AF064561		Hordeum vulgare	AAA85155.1	U20294	Solanum tuberosum
AAC36471.1	AF072724		Zea mays	AAA92681.1	U13882	Pisum sativum
AAA82735.1	U17897		Zea mays	CAA78301.1	Z12839	Lilium longiflorum
AAD50279.2	AF169833		Sorghum bicolor	AAD10246.1	AF030034	Phaseolus vulgaris
BAA01854.1	D11081		Zea mays	AAC49587.1	U49105	Triticum aestivum
				AAC49586.1	U49104	Triticum aestivum
				AAC49585.1	U49103	Triticum aestivum
				AAC49584.1	U48693	Triticum aestivum

SEQ ID NO.	874	875	876
AAAC49580.1	U48689	Triticum aestivum	CAA67554.1
AAAC49579.1	U48688	Triticum aestivum	CAA72330.1
AAAC49578.1	U48242	Triticum aestivum	CAA10288.1
CAA78287.1	Z12827	Oryza sativa	CAA72291.1
AAA33900.1	L18914	Oryza sativa	CAA58760.1
CAA78288.1	Z12828	Oryza sativa	CAB37188.1
AAA16320.1	L14071	Bryonia dioica	AAF65766.1
AAAC49583.1	U48692	Triticum aestivum	CAA47099.1
SEQ ID NO.	874	Populus tremula x Populus	AB41548.1
AAAD13031.1	AF097938	Populus tremula x Populus	AAF23790.1
tremuloides			AAF23902.1
AAK18846.1	AC082645	Oryza sativa	CAA50036.1
CAB60127.1	AJ250769	Pisum sativum	CAC13967.1
AAC50049.1	U89342	Zea mays	BA09600.1
AAC50048.1	U89341	Zea mays	AAD52659.1
CAB93681.1	AJ240054	Solanum tuberosum	AAK01710.1
AB41895.1	U84888	Mesembryanthemum crystallinum	AAG40579.1
CAB60128.1	AJ250770	Pisum sativum	CAA58761.1
CAB93680.1	AJ240053	Solanum tuberosum	CAA56314.1
CAB60109.1	AJ250771	Brassica napus	AAF73236.1
SEQ ID NO.	875	Oryza sativa	AAF73236.1
CAA73848.1	Y13437	Oryza sativa	AAF33903.1
BAA92966.1	AP001551	Petunia x hybrida	CAA57721.1
CAA58594.1	X83619	Oryza sativa	CAA57719.1
BAA92214.1	AP001278	Oryza sativa	CAA57719.1
BAB40983.1	AB059621	Nicotiana tabacum	CAA57719.1
CAA54803.1	X77763	Medicago sativa	CAC15504.1
CAA48474.1	X68411	Medicago sativa	CAA49592.1
CAA48472.1	X68409	Medicago sativa	CAA73323.1
CAA48473.1	X68410	Medicago sativa	AAF73257.1
CAA69899.1	Y08607	Nicotiana tabacum	AAG40580.1
CAA11860.1	AJ224163	Brassica napus	AAA33479.1
CAA73214.1	Y12674	Petunia x hybrida	SEQ ID NO.
CAA05329.1	AJ002315	Petunia x hybrida	876
CAA11862.1	AJ224165	Petunia x hybrida	AAG13131.1
CAA58595.1	X83620	Petunia x hybrida	AAB40530.1
CAA11861.1	AJ224164	Nicotiana tabacum	BAB08208.1
CAA05328.1	AJ002314	Medicago sativa	BAA96769.1
CA08564.1	AJ295939	Medicago sativa	AAA90948.1
			AAG22488.1
			CAA57447.1
			CAA42120.1
			CAA35589.1
			CAA91444.1
			SEQ ID NO.
			876
			AAG13131.1
			AAB40530.1
			BAB08208.1
			BAA96769.1
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			CAA42120.1
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			SEQ ID NO.
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			AAG13131.1
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			CAA42120.1
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			AAG13131.1
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			SEQ ID NO.
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			AAG13131.1
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			BAB08208.1
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			AAG22488.1
			CAA57447.1
			CAA42120.1
			CAA



[illegible]

CAA68143.1	X99825	Petroselinum crispum	BAA06538.1	D31737	Nicotiana tabacum
BAA90521.1	AB037678	Phaseolus vulgaris	AAF68398.1	AF237568	Oryza sativa
SEQ ID NO. 881			BAA94517.1	AF001800	Oryza sativa
AAG17470.1	AF123609	Triticum aestivum	AAF78044.1	AF248493	Oryza sativa
AAK31592.1	AY029178	Brassica rapa subsp. pekinensis	CAB51834.1	00069	Oryza sativa
AAG33645.1	AF092917	Vicia sativa	AAF78021.1	AF238477	Oryza sativa
AAD10204.1	AF030260	Vicia sativa	AAD46420.1	AF100771	Hordeum vulgare
CAB41474.1	AJ238402	Catharanthus roseus	AAD46917.1	AF164021	Oryza sativa
AAB94586.1	AF022457	Glycine max	AAF78018.1	AF238474	Oryza sativa
AAD56282.1	AF155332	Petunia x hybrida	AAC01746.1	AF044489	Oryza sativa
AAA32913.1	M32885	Persea americana	BAB39437.1	AF003338	Oryza sativa
AAA17732.1	L19074	Catharanthus roseus	AAF78019.1	AF238475	Oryza sativa
BAA12159.1	D83968	Glycine max	BAA05648.1	D26601	Nicotiana tabacum
AAC32274.1	AF081575	Petunia x hybrida	SEQ ID NO. 883		
AAG09208.1	AF175278	Pisum sativum	BAA83575.1	AF000399	Oryza sativa
CAA50155.1	X70824	Solanum melongena	SEQ ID NO. 884		
AAC49188.2	U29333	Pisum sativum	CAA67575.1	X99134	Lycopersicon esculentum
AAD37433.1	AF150881	Lycopersicon esculentum x	CAA78386.1	Z13996	Petunia x hybrida
Lycopersicon peruvianum			AAB41101.1	U72762	Nicotiana tabacum
BAA13076.1	D86351	Glycine max	BAA88223.1	AB028651	Nicotiana tabacum
AAD03415.1	AF069494	Sinapis alba	BAA88222.1	AB028650	Nicotiana tabacum
AAG14961.1	AF214007	Brassica napus	CAA78387.1	Z13997	Petunia x hybrida
AAB94590.1	AF022461	Glycine max	BAA88224.1	AB028652	Nicotiana tabacum
AAG14962.1	AF214008	Brassica napus	BAA88221.1	AB028649	Nicotiana tabacum
AAF27282.1	AF122821	Capsicum annuum	CAB43399.1	AJ006292	Antirrhinum majus
AAB94588.1	AF022459	Glycine max	CAA66952.1	X98308	Lycopersicon esculentum
CAA70575.1	Y09423	Nepeta racemosa	CAA67600.1	X99210	Lycopersicon esculentum
BAA22422.1	AB001379	Glycyrrhiza echinata	AAA33500.1	M73028	Zea mays
SEQ ID NO. 882			AAG36774.1	AF210616	Zea mays
CAC09580.1	AJ298992	Fagus sylvatica	CAA64614.1	X95296	Lycopersicon esculentum
AAA34002.1	M67449	Glycine max	AAF22256.1	AF161711	Pimpinella brachycarpa
AAK11734.1	AY027437	Arachis hypogaea	CAA64615.1	X95297	Lycopersicon esculentum
CAA06334.1	AJ005077	Lycopersicon esculentum	CAA75509.1	Y15219	Oryza sativa subsp. indica
AAG31141.1	AF305911	Oryza sativa	SEQ ID NO. 888		
AAD46406.1	AF096250	Lycopersicon esculentum	AAA50763.1	U15605	Nicotiana glutinosa
AAG31142.1	AF305912	Hordeum vulgare	AAG43546.1	AF211528	Nicotiana tabacum
AAD10056.1	AF110518	Lycopersicon esculentum	CAA08798.1	AJ009720	Solanum tuberosum
AAD10057.1	AF110519	Lycopersicon esculentum	CAA08797.1	AJ009719	Solanum tuberosum
AAK30005.1	AY029067	Rosa hybrid cultivar			

AAG09954.1	AF175399	Glycine max	AAK28805.1	AF310960	Linum usitatissimum
AAG09951.1	AF175388	Glycine max	AAK28808.1	AF310961	Linum usitatissimum
AAD25965.1	AF093638	Linum usitatissimum	SEQ ID NO. 889		
AAD25968.1	AF093641	Linum usitatissimum	AAC18055.1	AF041848	Spinacia oleracea
AAA91021.1	U27081	Linum usitatissimum	AAC26113.1	AF073830	Solanum tuberosum
AAA91022.1	U27081	Linum usitatissimum	AAB64291.1	AF007582	Zea mays
CAC35330.1	AJ310155	Linum usitatissimum	SEQ ID NO. 891		
AAD25973.1	AF093646	Linum usitatissimum	CAB56569.1	AJ011622	Antirrhinum majus
CAC35339.1	AJ310164	Linum usitatissimum	CAB56570.1	AJ011623	Antirrhinum majus
CAC35326.1	AJ310151	Linum usitatissimum	CAB56568.1	AJ011621	Antirrhinum majus
AAD25974.1	AF093647	Linum usitatissimum	AAB51071.1	U89496	Zea mays
AAD25966.1	AF093639	Linum usitatissimum	CAA63113.1	X92369	Antirrhinum majus
AAD25975.1	AF093648	Linum usitatissimum	CAA63061.1	X92079	Antirrhinum majus
AAD25976.1	AF093649	Linum usitatissimum	SEQ ID NO. 892		
AAD25972.1	AF093645	Linum usitatissimum	CAB56570.1	AJ011623	Antirrhinum majus
AAD25971.1	AF093644	Linum usitatissimum	CAB56569.1	AJ011622	Antirrhinum majus
AAD25970.1	AF093643	Linum usitatissimum	CAA63061.1	X92079	Antirrhinum majus
AAD25967.1	AF093640	Linum usitatissimum	CAB56568.1	AJ011621	Antirrhinum majus
AAD25969.1	AF093642	Linum usitatissimum	CAA63113.1	X92369	Antirrhinum majus
CAC35321.1	AJ310150	Linum usitatissimum	AAB51071.1	U89496	Zea mays
AAG01052.1	AF175395	Glycine max	AAB70119.1	U82230	Zea mays
AAG01051.1	AF175394	Glycine max	SEQ ID NO. 893		
CAC35333.1	AJ310158	Linum usitatissimum	CAA71800.1	Y10847	Brassica juncea
CAC35329.1	AJ310154	Linum usitatissimum	CAA71798.1	Y10845	Brassica juncea
CAC35337.1	AJ310162	Linum usitatissimum	AAC25635.1	AF044172	Solanum tuberosum
CAC35334.1	AJ310159	Linum usitatissimum	BAA01279.1	D10476	Spinacia oleracea
CAC35338.1	AJ310163	Linum usitatissimum	BAA02438.1	D13153	Triticum aestivum
AAB47618.1	U73916	Linum usitatissimum	CAA59798.1	X85803	Zea mays
CAC35331.1	AJ310156	Linum usitatissimum	AAD23907.1	AF073695	Oryza sativa
CAC35323.1	AJ310150	Linum usitatissimum	AAD23909.1	AF073697	Oryza sativa
CAC35328.1	AJ310153	Linum usitatissimum	AAC25636.1	AF044173	Solanum tuberosum
CAC35336.1	AJ310161	Linum usitatissimum	CAA06819.1	AJ006024	Cicer arietinum
CAC35332.1	AJ310157	Linum usitatissimum	CAA46086.1	X64874	Capsicum annuum
CAC35325.1	AJ310150	Linum usitatissimum	CAA71799.1	Y10846	Brassica juncea
CAC35327.1	AJ310152	Linum usitatissimum	AAA16973.1	I05184	Chloroplast Spinacia oleracea
AAF61452.1	AF139523	Tagetes erecta	AAD23908.1	AF073696	Oryza sativa
AAK28801.1	AF310966	Linum usitatissimum	AAD23910.1	AF073698	Oryza sativa
AAK28806.1	AF310960	Linum usitatissimum			
AAK28812.1	AF310968	Linum usitatissimum			
AAK28810.1	AF310964	Linum usitatissimum			
AAK28809.1	AF310962	Linum usitatissimum			

SEQ ID NO. 896	AAA21758.1	U14956	Vicia faba	AAB97736.1	AF024634	Petroselinum crispum
CAA30978.1	X12446	X12446	Pisum sativum	AAC05022.1	U67186	Eschscholzia californica
CAB71293.1	AJ250378	AJ250378	Capsicum annuum	CAC27143.1	AJ132538	Picea abies
AAA33029.1	M25528	M25528	Mesembryanthemum crystallinum	AAC14746.1	AF057182	Pisum sativum
AAA34029.1	M86349	M86349	Spinacia oleracea	AAK15261.1	AF302498	Populus x generosa
CAA74359.1	Y14032	Y14032	Nicotiana tabacum	CAA81210.1	Z26251	Helianthus tuberosus
BAA88237.1	AB035645	AB035645	Zea mays	CAA81211.1	Z26252	Vicia sativa
BAA04616.1	D17790	D17790	Oryza sativa	AAC14743.1	AF057179	Pisum sativum
BAA90642.1	AP001129	AP001129	Oryza sativa	AAC14745.1	AF057181	Pisum sativum
BAA85425.1	AP000616	AP000616	Oryza sativa	SEQ ID NO. 897		
BAA88236.1	AB035644	AB035644	Zea mays	CAA50520.1	X71397	Spinacia oleracea
BAA13417.1	D87547	D87547	Oryza sativa	AAD55575.1	AF110793	Volvox carteri f. nagarien
BAA07479.1	D38445	D38445	Oryza sativa	SEQ ID NO. 898		
BAA02248.1	D12815	D12815	Oryza sativa	AAD27880.2	AF139468	Vigna radiata
BAA04232.1	D17410	D17410	Oryza sativa	AAA33344.1	M83119	Flaveria trinervia
BAA20365.1	AB004307	AB004307	Nicotiana tabacum	AAA68147.1	U08135	Hordeum vulgare
CAA67796.1	X99419	X99419	Pisum sativum	AAC78106.1	AF093634	Oryza sativa
AAB40034.1	U10418	U10418	Zea mays	AAF19787.1	AF162201	Chloroplast lactuca sativa
AAK09367.1	AF321525	AF321525	Pisum sativum	AAD27871.1	AF135791	Chlamydomonas reinhardtii
AAK09370.1	AF321528	AF321528	Pisum sativum	SEQ ID NO. 899		
AAA79131.1	U10545	U10545	Chlamydomonas reinhardtii	CAA43841.1	X61664	Nicotiana sylvestris
AAK09369.1	AF321527	AF321527	Pisum sativum	AAC26196.1	AF052076	Zea mays
AAK09368.1	AF321526	AF321526	Pisum sativum	AAC78107.1	AF093635	Oryza sativa
AAB40978.1	U22328	U22328	Volvox carteri	CAA34218.1	X16092	Hordeum vulgare
CAA55406.1	X78851	X78851	Chlamydomonas reinhardtii	SEQ ID NO. 900		
AAB59303.1	L15567	L15567	Pisum sativum	BAA25432.1	AB000706	Raphanus sativus
AAB59333.1	L15566	L15566	Pisum sativum	AAB47752.1	U77952	Malus x domestica
AAB59349.1	L15565	L15565	Pisum sativum	CAA50259.1	X70902	Nicotiana tabacum
AAB59304.1	L15569	L15569	Pisum sativum	CAA88361.1	Z48451	Capsicum annuum
CAA45703.1	X64351	X64351	Spinacia oleracea	CAA09882.1	AJ011943	Lycopersicon esculentum
CAA49446.1	X69791	X69791	Catharanthus roseus	CAA50260.1	X70903	Nicotiana tabacum
AAC05021.1	U67185	U67185	Papaver somniferum	CAA62956.1	X91839	Fragaria x ananassa
CAA81209.1	Z26250	Z26250	Helianthus tuberosus	AAB28589.1	S66813	Zea mays
AAA34240.1	L07843	L07843	Vigna radiata	AAA33431.1	L08426	Zea mays
AAK15259.1	AF302496	AF302496	Populus x generosa	AAB25115.1	S53630	Zea mays
CAA89837.3	Z49767	Z49767	Pseudotsuga menziesii	AAA33430.1	L08425	Zea mays
AAG17471.1	AF123610	AF123610	Triticum aestivum	CAA40061.1	X56737	Zea mays
AAK15260.1	AF302497	AF302497	Populus x generosa			
AAB97737.1	AF024635	AF024635	Petroselinum crispum			

CAA34376.1	X16309	Zea mays	AAA63901.1	U22432	Zea mays
AAA33436.1	J04550	Zea mays	AAB97115.1	U58854	Glycine max
BAA25433.1	AB000707	Avena sativa	AAB28535.1	S66160	Oryza sativa
AAF37576.1	AF233229	Ceratodon purpureus			
AAA33432.1	L08427	Zea mays	SEQ ID NO. 902		
			AAA50763.1	U15605	Nicotiana glutinosa
SEQ ID NO. 901			CAA08798.1	AJ009720	Solanum tuberosum
CAA98183.1	Z73955	Lotus japonicus	AAG09951.1	AF175388	Glycine max
CAA54506.1	X77301	Glycine max	AAK28809.1	AF310962	Linum usitatissimum
BAA02108.1	D12540	Pisum sativum	AAK28810.1	AF310964	Linum usitatissimum
AAD48018.1	AF165095	Gossypium hirsutum	AAK28804.1	AF310959	Linum usitatissimum
CAA98186.1	Z73958	Lotus japonicus	AAK28812.1	AF310968	Linum usitatissimum
AAD48019.1	AF165096	Gossypium hirsutum	AAK28805.1	AF310960	Linum usitatissimum
AAB47558.1	U87143	Mesembryanthemum crystallinum	AAK28803.1	AF310958	Linum usitatissimum
CAA54507.1	X77302	Glycine max	AAK28808.1	AF310961	Linum usitatissimum
BAA06701.1	D31905	Zea mays	AAK28811.1	AF310966	Linum usitatissimum
BAA02904.1	D13758	Oryza sativa	AAK28806.1	AF310960	Linum usitatissimum
AAK15703.1	AF327517	Oryza sativa	CAC35328.1	AJ310153	Linum usitatissimum
CAA89049.1	Z49190	Beta vulgaris	AAG43546.1	AF211528	Nicotiana tabacum
CAA98181.1	Z73953	Lotus japonicus	CAC35332.1	AJ310157	Linum usitatissimum
BAA02114.1	D12546	Pisum sativum	CAC35325.1	AJ310150	Linum usitatissimum
CAA98180.1	Z73952	Lotus japonicus	CAC35336.1	AJ310161	Linum usitatissimum
AAB97114.1	U58853	Glycine max	CAA08797.1	AJ009719	Solanum tuberosum
CAA98179.1	Z73951	Lotus japonicus	CAC35321.1	AJ310150	Linum usitatissimum
BAA02113.1	D12545	Pisum sativum	CAC35329.1	AJ310154	Linum usitatissimum
BAA02437.1	D13152	Oryza sativa	CAC35326.1	AJ310151	Linum usitatissimum
CAA98177.1	Z73949	Lotus japonicus	CAC35339.1	AJ310164	Linum usitatissimum
BAA02112.1	D12544	Pisum sativum	CAC35338.1	AJ310163	Linum usitatissimum
BAA02111.1	D12543	Pisum sativum	CAC35330.1	AJ310155	Linum usitatissimum
CAA98184.1	Z73956	Lotus japonicus	CAC35334.1	AJ310159	Linum usitatissimum
BAA02110.1	D12542	Pisum sativum	CAC35337.1	AJ310162	Linum usitatissimum
CAA41966.1	X59276	Oryza sativa	CAC35327.1	AJ310152	Linum usitatissimum
CAA95859.1	Z71276	Mangifera indica	CAC35323.1	AJ310150	Linum usitatissimum
BAA06702.1	D31906	Zea mays	CAC35331.1	AJ310156	Linum usitatissimum
CAA98178.1	Z73950	Lotus japonicus	CAC35333.1	AJ310158	Linum usitatissimum
BAA02109.1	D12541	Pisum sativum	AAD25974.1	AF093647	Linum usitatissimum
BAA84640.1	AB007911	Pisum sativum	AAD25976.1	AF093649	Linum usitatissimum
CAA67153.1	X98540	Fagus sylvatica	AAG09953.1	AF175398	Glycine max
CAA55865.1	X79278	Medicago sativa	AAD25966.1	AF093639	Linum usitatissimum
CAA98182.1	Z73954	Lotus japonicus	AAD25965.1	AF093638	Linum usitatissimum
AAA34253.1	L08130	Vulvox carteri	AAD25967.1	AF093640	Linum usitatissimum

AAD25970.1	AF093643	Linum usitatissimum	BAA92836.1	AB032473	Brassica oleracea
AAD25975.1	AF093648	Linum usitatissimum	AAA33915.1	L27821	Oryza sativa
AAD25971.1	AF093644	Linum usitatissimum	BAA92837.1	AB032474	Brassica oleracea
AAB47618.1	U73916	Linum usitatissimum	SEQ ID NO. 904		
AAD25969.1	AF093642	Linum usitatissimum	AAF17077.1	AF199453	Sorghum bicolor
AAG09952.1	AF175389	Glycine max	AAF61647.1	AF190634	Nicotiana tabacum
AAD25972.1	AF093645	Linum usitatissimum	BAA89009.1	AB027455	Petunia x hybrida
AAD25968.1	AF093641	Linum usitatissimum	AAF98390.1	AF287143	Brassica napus
AAA91022.1	U27081	Linum usitatissimum	AAD21086.1	AF127218	Forsythia x intermedia
AAD25973.1	AF093646	Linum usitatissimum	BAA93039.1	AB033758	Citrus unshiu
AAA91021.1	U27081	Linum usitatissimum	BAA83484.1	AB031274	Scutellaria baicalensis
AAG09954.1	AF175399	Glycine max	BAA12737.1	D85186	Gentiana triflora
SEQ ID NO. 903			CAA54612.1	X77462	Manihot esculenta
AAA34002.1	M67449	Glycine max	BAA19155.1	AB000623	Nicotiana tabacum
CAC09580.1	AJ298992	Fagus sylvatica	BAA89008.1	AB027454	Petunia x hybrida
AAK11734.1	AY027437	Arachis hypogaea	BAA90787.1	AB038248	Ipomoea batatas
CAA06334.1	AJ005077	Lycopersicon esculentum	AAB36653.1	U32644	Nicotiana tabacum
AAD10057.1	AF110519	Lycopersicon esculentum	AAB36652.1	U32643	Nicotiana tabacum
AAD10056.1	AF110518	Lycopersicon esculentum	AAK28303.1	AF346431	Nicotiana tabacum
AAD46406.1	AF096250	Lycopersicon esculentum	AAK28304.1	AF346432	Nicotiana tabacum
AAG31141.1	AF305911	Oryza sativa	CAA30761.1	X07940	Zea mays
AAG31142.1	AF305912	Hordeum vulgare	AAK16410.1	AF320086	Zea mays
AAK30005.1	AY029067	Rosa hybrid cultivar	CAA31855.1	X13500	Zea mays
AAK21965.1	AY028699	Brassica napus	BAA36421.1	AB013596	Perilla frutescens
AAF91323.1	AF244889	Glycine max	AAB86473.1	AF028237	Ipomoea purpurea
AAF91324.1	AF244890	Glycine max	CAA30760.1	X07937	Zea mays
AAF91322.1	AF244888	Glycine max	BAB41021.1	AB047094	Vitis vinifera
AAK16409.1	AF320086	Zea mays	BAB41019.1	AB047092	Vitis vinifera
BAA06538.1	D31737	Nicotiana tabacum	BAB41025.1	AB047098	Vitis vinifera
BAA21132.1	D88193	Brassica rapa	AAD55985.1	AF165148	Petunia x hybrida
BAA06285.1	D30049	Brassica rapa	BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera
CAA97692.1	Z73295	Catharanthus roseus	BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera
CAA08995.1	AJ010091	Brassica napus	BAB41023.1	AB047096	Vitis vinifera
CAB51834.1	00069	Oryza sativa	CAA59450.1	X85138	Lycopersicon esculentum
AAF43496.1	AF131222	Lophopyrum elongatum	CAA54614.1	X77464	Manihot esculenta
AAK11674.1	AF339747	Lophopyrum elongatum	AAB81682.1	AF000371	Vitis vinifera
AAA62232.1	U00443	Brassica napus	AAB81683.1	AF000372	Vitis vinifera
AAC36318.1	AF053127	Malus x domestica	BAB41024.1	AB047097	Vitis vinifera
AAC23542.1	U20948	Ipomoea trifida	CAA54558.1	X77369	Solanum melongena
BAA23676.1	AB000970	Brassica rapa	BAB41026.1	AB047099	Vitis vinifera

BAB41020.1	AB047093	Vitis vinifera	AAD26204.1	AF117268	Malus x domestica
BAB41022.1	AB047095	Vitis vinifera	AAB20555.1	S69616	Hordeum vulgare
BAA19659.1	AB002818	Perilla frutescens	CAA78930.1	Z17221	Gerbera hybrida
SEQ ID NO. 905			BAB40789.1	AB058641	Lilium hybrid division I
AAF43095.1	AF053769	Malus x domestica	AAD49343.1	AF169801	Lilium hybrid cv. 'Acapulc
AAD00252.1	U76408	Lycopersicon esculentum	CAA75997.1	Y16041	Zea mays
CAB88029.1	AJ276389	Dendrobium grex Madame Thong-In	BAA36182.1	AB003495	Oryza sativa
BAA31699.1	AB016000	Ipomoea nil	BAA36183.1	AB003496	Oryza sativa
BAA31700.1	AB016001	Ipomoea nil	CAA91924.1	Z67983	Dianthus caryophyllus
BAB18584.1	AB043956	Ceratopteris richardii	CAA69253.1	Y07956	Oryza sativa
AAB41849.1	U65648	Solanum tuberosum	AAF60298.1	AF233639	Petunia x hybrida
BAB18582.1	AB043954	Ceratopteris richardii	CAA33544.1	X15537	Petunia x hybrida
BAB18583.1	AB043955	Ceratopteris richardii	AAG01030.1	AF291097	Dianthus gratianopolitanus
AAD09582.1	U76409	Lycopersicon esculentum	BAA19658.1	AB002817	Perilla frutescens
AAC33008.1	AF080104	Pisum sativum	AB94014.1	AF010283	Sorghum bicolor
AAG27464.1	AF308454	Medicago truncatula	BAA12736.1	D85185	Gentiana triflora
BAA31698.1	AB015999	Ipomoea nil	CAA75998.1	Y16042	Zea mays
AAF23753.2	AF193813	Brassica oleracea	CAA75996.1	Y16040	Zea mays
AAD00251.1	U76407	Lycopersicon esculentum	CAA70345.1	Y09127	Forsythia x intermedia
AAC49917.1	AF000141	Lycopersicon esculentum	AB94015.1	AF010283	Sorghum bicolor
AAC32817.1	AF050180	Oryza sativa	CAA79154.1	Z18277	Lycopersicon esculentum
AAB81079.1	AF022390	Hordeum vulgare	CAA33543.1	X15536	Antirrhinum majus
AAD00692.1	U90099	Picea mariana	BAA74700.1	AB018438	Ipomoea purpurea
AAC49918.1	AF000142	Lycopersicon esculentum	BAA34637.1	AB019243	Ipomoea batatas
AAD13611.1	AF100455	Zea mays	AB84048.1	AF028601	Ipomoea purpurea
AAC32818.1	AF050181	Oryza sativa	BAA74699.1	AB018437	Ipomoea purpurea
SEQ ID NO. 906			BAA36406.1	AB011667	Ipomoea purpurea
AAF17576.1	AF202182	Glycine max	BAA59333.1	AB006793	Ipomoea nil
AAB41550.1	U28213	Medicago sativa subsp. sativa	BAA22072.1	AB006792	Ipomoea nil
AAD17997.1	AF107404	Pisum sativum	BAB20075.1	AB012924	Torenia hybrida
CAA72420.1	Y11749	Vitis vinifera	AAB62873.1	AF007096	Bromheadia finlaysonian
CAA91922.1	Z67981	Callistephus chinensis	BAA36405.1	AB011667	Ipomoea purpurea
AAD54273.1	AF167556	Glycine max	SEQ ID NO. 910		
CAA53578.1	X75964	Vitis vinifera	CAC00658.1	AJ292745	Petroselinum crispum
AAD56578.1	AF184271	Daucus carota	CAC00657.1	AJ292744	Petroselinum crispum
BAA12723.1	D85102	Rosa hybrid cultivar	CAA74023.1	Y13676	Antirrhinum majus
AAC25960.1	AF029685	Fragaria x ananassa	CAA74022.1	Y13675	Antirrhinum majus
BAB4940.1	AB018686	Camellia sinensis	AAD55394.1	AF176641	Lycopersicon esculentum
BAB49439.1	AB018685	Camellia sinensis	BAA22204.1	D63951	Nicotiana tabacum
			CAA71687.1	Y10685	Glycine max

AAK25822.1	AF350505	Phaseolus vulgaris	BAA4939.1	AB018685	Camellia sinensis
CAA41453.1	X58577	Petroselinum crispum	BAA74700.1	AB018438	Ipomoea purpurea
BAA11431.1	D78609	Oryza sativa	AAB84048.1	AF028601	Ipomoea purpurea
BAA36492.1	AB021736	Oryza sativa	BAA84940.1	AB018686	Camellia sinensis
AAK01953.1	AY026054	Phaseolus acutifolius	CAA53578.1	X75964	Vitis vinifera
AAC37418.1	L34551	Oryza sativa	BAA34637.1	AB019243	Ipomoea batatas
CAA70216.1	Y09013	Triticum aestivum	AAF17576.1	AF202182	Glycine max
CAA71795.1	Y10834	Hordeum vulgare	AAD54273.1	AF167556	Glycine max
AAB36514.1	U57389	Phaseolus vulgaris	BAA36407.1	AB011667	Ipomoea purpurea
CAA71768.1	Y10809	Petroselinum crispum	AAD56578.1	AF184271	Daucus carota
AAK14790.1	AY027510	Catharanthus roseus	AAC25960.1	AF029685	Fragaria x ananassa
CAC00656.1	AJ292743	Petroselinum crispum	CAA75997.1	Y16041	Zea mays
CAAL1499.1	AJ223624	Spinacia oleracea	AAB94014.1	AF010283	Sorghum bicolor
CAA66477.1	X97903	Vicia faba	CAA75998.1	Y16042	Zea mays
			CAA75996.1	Y16040	Zea mays
SEQ ID NO. 912			SEQ ID NO. 914		
AAG09817.1	AF278698	Lolium perenne	CAC57551.1	X82030	Phaseolus vulgaris
CAA13176.1	AJ231134	Saccharum officinarum	CAA66479.1	X97905	Vicia faba
CAA66707.1	X98083	Zea mays	CAC01237.1	AJ292767	Nicotiana plumbaginifolia
CAA74071.1	Y13734	Zea mays	AAF66823.1	AF190655	Nicotiana tabacum
CAC07424.1	AJ295838	Populus balsamifera subsp.	AAK30205.1	AF349964	Daucus carota
trichocarpa			AAB38974.1	U81318	Triticum aestivum
CAA12276.1	AJ224986	Populus balsamifera subsp.	CAA81127.1	Z26042	Anemia phyllitidis
trichocarpa			AAA79045.1	U34742	Spinacia oleracea
AAF43141.1	AF217958	Populus tremuloides	AAC39368.1	AF043297	Chlamydomonas reinhardtii
CAA56103.1	X79566	Eucalyptus gunnii	AAF63202.1	AF240679	Cucumis sativus
CAA66063.1	X97433	Eucalyptus gunnii	CAA11894.1	AJ224325	Hordeum vulgare
AAG16242.1	AF297877	Eucalyptus saligna	AAF66825.1	AF190657	Nicotiana tabacum
CAA75352.1	Y15069	Zea mays	CAA06469.1	AJ005286	Hordeum vulgare
AAD53967.1	AF033851	Vigna radiata			
AAD49343.1	AF169801	Lilium hybrid cv. 'Acapulco'	SEQ ID NO. 915		
CAA78930.1	Z17221	Gerbera hybrida	CAC37011.1	AJ238318	Oryza sativa
CAA72420.1	Y11749	Vitis vinifera			
CAA91922.1	Z67981	Callistephus chinensis	SEQ ID NO. 918		
AAD56579.1	AF184272	Daucus carota	CAA77595.1	Z11510	Pisum sativum
BAB40789.1	AB058641	Lilium hybrid division I			
BAA22072.1	AB006792	Ipomoea nil	SEQ ID NO. 920		
AAD26204.1	AF117268	Malus x domestica	BAA33755.2	AB017480	Nicotiana tabacum
BAA59333.1	AB006793	Ipomoea nil	CAA62084.1	X90472	Capsicum annuum
BAA74699.1	AB018437	Ipomoea purpurea	AAK15322.1	AF332134	Chloroplast Medicago sativa
BAA36406.1	AB011667	Ipomoea purpurea			



AA017230.1	AF117339	Nicotiana tabacum	AAK11568.1	AF318492	Lycopersicon hirsutum
CAA09935.1	AJ012165	Capsicum annuum	AAF91336.1	AF249317	Glycine max
BAB17624.1	AB033535	Oryza sativa	SEQ ID NO. 927		
BAA13021.1	D86121	Spinacia oleracea	CAB51545.1	AJ243876	Lycopersicon esculentum
AAF27916.1	AF220199	Pinus taeda	SEQ ID NO. 928		
BAB19880.1	AB052887	Oryza sativa	AAF80450.1	AF161719	Triticum aestivum
BAB17626.1	AB033537	Oryza sativa	AA072110.1	U79958	Pisum sativum
BAB17625.1	AB033536	Oryza sativa	AAF22842.1	AF209910	Prunus dulcis
CAB55389.1	AL117264	Oryza sativa	AAK31596.1	AY029172	Helianthus annuus
AA067835.1	U43398	Solanum tuberosum	AA072113.1	U79961	Zea mays
AAF12877.1	AF205377	Chlamydomonas reinhardtii	BAA92985.1	AP001550	Oryza sativa
AAF37267.1	AF220406	Vitis riparia			
CAA06853.1	AJ006095	Cicer arietinum			
SEQ ID NO. 926			SEQ ID NO. 929		
AAK21965.1	AY028699	Brassica napus	AAK09431.1	AF324244	Phaseolus vulgaris
AA030390.1	AC073405	Oryza sativa	AAA18546.1	M94204	Nicotiana tabacum
AA016628.1	AY007545	Brassica napus	AAF15312.1	AF145053	Oryza sativa
AA061708.1	U93048	Daucus carota	AA032661.1	AF264877	Zea mays
AA043496.1	AF131222	Lophopyrum elongatum	AAK08141.1	AF234537	Pelargonium graveolens
AAK11674.1	AF339747	Lophopyrum elongatum	AA054821.1	AF137379	Chloroplast Nephrolepis
BAA78764.1	AB023482	Oryza sativa	olivacea		
AAA33915.1	L27821	Oryza sativa	CAA74893.1	Y14561	Pisum sativum
BAA94509.1	AB041503	Populus nigra	AAF43860.1	AF166114	Chloroplast Mesostigma viride
CAA73134.1	Y12531	Brassica oleracea	CAA75382.1	Y15108	Glycine max
BAA94510.1	AB041504	Populus nigra	SEQ ID NO. 936		
CAB51834.1	00069	Oryza sativa	AA038796.1	U73203	Nicotiana glutinosa
AA061805.1	U28007	Lycopersicon esculentum	AA069757.1	U75644	Lycopersicon esculentum
AA023542.1	U20948	Ipomoea trifida	AA049666.1	U83708	Lycopersicon esculentum
BAA92954.1	AP001551	Oryza sativa	SEQ ID NO. 937		
CAA97692.1	Z73295	Catharanthus roseus	AA024195.1	AF020425	Nicotiana tabacum
AA066615.1	AF142596	Nicotiana tabacum	AAK18620.1	AF352732	Nicotiana tabacum
AA093834.1	U82481	Zea mays	AA040608.1	U54774	Nicotiana tabacum
AA076313.1	AF220603	Lycopersicon esculentum	AAA33710.1	L16977	Petunia x hybrida
AA047421.1	U59316	Lycopersicon esculentum	AA033709.1	L16797	Petunia x hybrida
CAB89179.1	AJ245479	Brassica napus subsp. napus	AA039483.1	AF020424	Nicotiana tabacum
AA033008.1	M97667	Brassica napus	BAB32870.1	AB056062	Oryza sativa
AA091337.1	AF249318	Glycine max	BAB32868.1	AB056060	Oryza sativa
AA091324.1	AF244890	Glycine max	BAB32871.1	AB056063	Oryza sativa
AA091323.1	AF244889	Glycine max			
BAA23676.1	AB000970	Brassica rapa			

BAB32869.1	AB056061	Oryza sativa	AAC36318.1	AF053127	Malus x domestica
CAA50719.1	X71900	Lycopersicon esculentum	AAB61708.1	U93048	Daucus carota
SEQ ID NO. 938			AAF91323.1	AF244889	Glycine max
AAF61647.1	AF190634	Nicotiana tabacum	AAG52992.1	U77888	Ipomoea nil
AAAS9054.1	I34847	Zea mays	AAF91324.1	AF244890	Glycine max
BAA89009.1	AB027455	Petunia x hybrida	AAF91322.1	AF244888	Glycine max
BAA36423.1	AB013598	Verbena x hybrida	AAB36558.1	U77888	Ipomoea nil
AAF98390.1	AF287143	Brassica napus	AAF59906.1	AF197947	Glycine max
BAA36421.1	AB013596	Perilla frutescens	AAK21965.1	AY028699	Brassica napus
BAA93039.1	AB033758	Citrus unshiu	AAG03090.1	AC073405	Oryza sativa
BAA36422.1	AB013597	Perilla frutescens	CAC20842.1	AJ250467	Pinus sylvestris
BAA83484.1	AB031274	Scutellaria baicalensis	AAD27675.1	AF119222	Oryza sativa
CAB56231.1	Y18871	Dorotheanthus bellidiformis	AAG52994.1	U77888	Ipomoea nil
AAB36653.1	U32644	Nicotiana tabacum	AAF91337.1	AF249318	Glycine max
AAB36652.1	U32643	Nicotiana tabacum	AAF91336.1	AF249317	Glycine max
AAK28303.1	AF346431	Nicotiana tabacum	AAA33915.1	L27821	Oryza sativa
AAK28304.1	AF346432	Nicotiana tabacum	AAC61805.1	U28007	Lycopersicon esculentum
CAA59450.1	X85138	Nicotiana tabacum	AAG25966.1	AF302082	Nicotiana tabacum
BAA89008.1	AB027454	Lycopersicon esculentum	BAA84787.1	AP000559	Oryza sativa
AAF17077.1	AF199453	Petunia x hybrida	AAF59905.1	AF197946	Glycine max
AAB81683.1	AF000372	Sorghum bicolor	BAA83373.1	AP000391	Oryza sativa
BAB41017.1	AB047090	Vitis vinifera	SEQ ID NO. 940		
BAB41022.1	AB047095	Vitis labrusca x Vitis vinifera	CAA06339.1	AJ005082	Cyamopsis tetragonoloba
BAB41020.1	AB047093	Vitis vinifera	AAA86532.1	U31544	Pisum sativum
BAA12737.1	D85186	Vitis vinifera	CAA06338.1	AJ005081	Cyamopsis tetragonoloba
BAB41018.1	AB047091	Gentiana triflora	BAB40967.1	AB059568	Pisum sativum
AAD21086.1	AF127218	Vitis labrusca x Vitis vinifera	SEQ ID NO. 941		
AAB81682.1	AF000371	Forsythia x intermedia	AAB27811.1	S64617	Brassica napus
BAA19659.1	AB002818	Vitis vinifera	AAC34126.1	AF085197	Nicotiana tabacum
AAD04166.1	AF101972	Perilla frutescens	AAC27992.1	AF038875	Nicotiana tabacum
BAA90787.1	AB038248	Phaseolus lunatus	BAA76349.1	AB025029	Nicotiana tabacum
AAB86473.1	AF028237	Ipomoea batatas	AAG24908.1	AF305075	Nicotiana benthamiana
CAA54614.1	X77464	Ipomoea purpurea	CAA10108.1	AJ012662	Nicotiana tabacum
SEQ ID NO. 939		Manihot esculenta	AAD19905.1	AF104412	Nicotiana tabacum
AAK28345.1	AF243040	Lycopersicon esculentum	CAA76392.1	Y16796	Pisum sativum
AAK28346.1	AF243041	Zea mays	CAA77062.1	Y18135	Nicotiana tabacum
AAC12254.1	U58474	Lycopersicon esculentum	BAA33151.1	AB008186	Pisum sativum
AAC12253.1	U58473	Lycopersicon esculentum	CAA37979.1	X54046	Oryza sativa
AAA33715.1	L27341	Petunia integrifolia	BAA94512.1	AB041506	Populus nigra

CAA38893.1	X55052	Catharanthus roseus	AAA63543.1	M55019	Lycopersicon esculentum
CAA55669.1	X79065	Zea mays	CAA76054.1	Y16088	Lupinus luteus
AAD10528.1	U87949	Zea mays	AAF00471.1	AF178458	Lupinus luteus
CAB56779.1	X62976	Daucus carota	AAD22975.1	AF126551	Solanum tuberosum subsp.
CAA39239.1	X55706	Glycine max	tuberosum		
AAB81177.2	AF012212	Tetraselmis chui	AAA63403.1	M55021	Zea mays
AAB87568.1	AF034201	Dunaliella tertiolecta	CAA48638.1	X68678	Zea mays
BAA01412.1	D10555	Daucus carota	AAF65770.1	AF242312	Euphorbia esula
BAA20971.1	D10556	Daucus carota	AAA57045.1	L29469	Oryza sativa
AAA33913.1	J04538	Oryza sativa	AAB51386.1	U92087	Solanum commersonii
			AAA57046.1	L29470	Oryza sativa
			AAA62706.1	M55018	Brassica napus
SEQ ID NO. 942			AAC05639.1	AF052206	Chlamydomonas reinhardtii
AAC12662.1	AF032468	Zea mays	AAA57044.1	L29471	Oryza sativa
CAA05772.1	AJ002959	Zea mays	AAG01536.1	AF291180	Capsicum annuum
AAA34310.1	M62720	Triticum aestivum	AAA64430.1	L32095	Vicia faba
AAF73016.1	AF262934	Avicennia marina	CAA10766.1	AJ132763	Pseudotsuga menziesii
BAB40310.1	AB026055	Nicotiana tabacum	CAA65889.1	X97255	Digitalis lanata
BAB40311.1	AB026056	Nicotiana tabacum	CAA78459.1	Z14081	Nicotiana tabacum
AAB88617.1	AF034946	Zea mays			
AAA64427.1	L29077	Pisum sativum	SEQ ID NO. 944		
CAA51821.1	X73419	Lycopersicon esculentum	BAB21558.1	AB037156	Coix lacryma-jobi
AAD51109.1	AF176040	Mesembryanthemum crystallinum	BAA01472.1	D10622	Zea mays
AAA34125.1	L23762	Lycopersicon esculentum	BAA07327.1	D38130	Zea mays
AAD42941.1	AF091621	Catharanthus roseus	AAD13812.1	AF117334	Ipomoea batatas
BAA90392.1	AP001081	Oryza sativa	CAA11899.1	AJ224331	Castanea sativa
AAB02168.1	U15971	Oryza sativa	BAB18768.1	AB038394	Triticum aestivum
AAB63513.1	AF008910	Prunus armeniaca	BAB18766.1	AB038392	Triticum aestivum
AAA86089.1	U17250	Brassica oleracea	BAA19608.1	D31700	Glycine max
CAA58111.1	X82938	Lycopersicon esculentum	BAA95416.1	AB039673	Helianthus annuus
CAA10494.1	AJ131733	Pseudotsuga menziesii	BAA19610.1	D64115	Glycine max
AAG223847.1	AY004247	Lycopersicon esculentum	CAA50437.1	X71124	Carica papaya
AF165420	AF165420	Mesembryanthemum crystallinum	AAF23127.1	AF198389	Lycopersicon esculentum
AAA34309.1	M28059	Triticum aestivum	AAF23126.1	AF198388	Lycopersicon esculentum
AAC32141.1	AF051240	Picea mariana	AAB24010.1	S49967	Oryza
BAA21006.1	D17786	Oryza sativa	AAA33903.1	J03469	Oryza sativa
AAF03236.1	AF180143	Glycine max	AAB66355.1	U54702	Oryza sativa
			AAK15090.1	AF240007	Sesamum indicum
SEQ ID NO. 943			AA33911.1	J05595	Oryza sativa
CAA52414.1	X74403	Phaseolus vulgaris	AAA32672.1	L16624	Ambrosia artemisiifolia
CAA59468.1	X85185	Catharanthus roseus	CAA40860.1	X57658	Oryza sativa
CAA69598.1	Y08273	Digitalis lanata			

AAD33907.1	AF143677	Artemisia vulgaris	CAA55047.1	X78213	Parthenium argentatum
BAB18767.1	AB038393	Triticum aestivum	CAA69256.1	Y07959	Zea mays
AAA16120.1	L16450	Solanum tuberosum			
BAB18765.1	AB038391	Triticum aestivum			
AAF23128.1	AF198390	Lycopersicon esculentum			
BAB18769.1	AB038395	Triticum aestivum			
AAG38521.1	AF283536	Citrus x paradisi			
SEQ ID NO. 945					
AAB00109.1	U21801	Lycopersicon esculentum			
AAF04193.1	AF053638	Pisum sativum			
AAF04253.1	AF097651	Pisum sativum			
AAB57737.1	U89270	Tripsacum dactyloides			
CAA11154.1	AJ223178	Nicotiana tabacum			
CAA11153.1	AJ223177	Nicotiana tabacum			
AAC35340.1	AF072447	Ipomoea trifida			
AAC35342.1	AF072449	Ipomoea trifida			
AAC37345.1	L20621	Zea mays			
AAC35343.1	AF072450	Ipomoea trifida			
AAC35341.1	AF072448	Ipomoea trifida			
AAF04194.1	AF053639	Pisum sativum			
AAB57738.1	U89271	Tripsacum dactyloides			
AAF89645.1	AF169018	Glycine max			
CAA52213.1	X74115	Picea abies			
SEQ ID NO. 946					
AAB71079.1	U62752	Zea mays			
AAA91168.1	U40147	Zea mays			
CAA47042.1	X66411	Chlamydomonas reinhardtii			
AAD11447.1	U62750	Zea mays			
BAA92988.1	AP001550	Oryza sativa			
AAD11446.1	U62749	Zea mays			
CAA60251.1	X86553	Zea mays			
AAC49360.1	U29383	Zea mays			
AAD11459.1	U62748	Zea mays			
AAB63814.1	L46848	Glycine max			
CAA63786.1	X93587	Lupinus luteus			
AAB71078.1	U62751	Zea mays			
AAF34767.1	AF227622	Euphorbia esula			
AAB71080.1	U62753	Zea mays			
BAA04668.1	D21130	Oryza sativa			
SEQ ID NO. 947					
AAG34813.1	AF243378	Glycine max			
AAF64449.1	AF239927	Euphorbia esula			
AAG34814.1	AF243379	Glycine max			
CAA41279.1	X58390	Dianthus caryophyllus			
AAA33277.1	M64268	Dianthus caryophyllus			
AAF72197.1	AF263737	Euphorbia esula			
CAA55039.1	X78203	Hyoscyamus muticus			
AAG34812.1	AF243377	Glycine max			
AAB65163.1	AF002692	Solanum commersonii			
AAA51450.1	L05916	Dianthus caryophyllus			
CAB38119.1	AJ010296	Zea mays			
CAA96431.1	Z71749	Nicotiana plumbaginifolia			
BBA01394.1	D10524	Nicotiana tabacum			
CAB38118.1	AJ010295	Zea mays			
AAG34815.1	AF243380	Glycine max			
CAA68993.1	Y07721	Petunia x hybrida			
AAC50036.1	U42463	Coccomyxa sp. PA			
CAA09191.1	AJ010452	Alopecurus myosuroides			
AAG34825.1	AF244682	Zea mays			
CAA09190.1	AJ010451	Alopecurus myosuroides			
CAA09193.1	AJ010454	Alopecurus myosuroides			
AAA33931.1	M84969	Silene vulgaris			
AAA33930.1	M84968	Silene vulgaris			
CAA09192.1	AJ010453	Alopecurus myosuroides			
AAF61392.1	AF133894	Persea americana			
AAC64007.1	AF062403	Oryza sativa			
AAA33469.1	M16902	Zea mays			
AAA33470.1	M16901	Zea mays			
AAD56395.1	AF184059	Triticum aestivum			
CAA56047.1	X79515	Zea mays			
AAA20585.1	U12679	Zea mays			
CAA05354.1	AJ002380	Oryza sativa			
SEQ ID NO. 948					
AAA33280.1	L20475	Datura stramonium			
AAA33281.1	L20473	Datura stramonium			
CAC34420.1	AJ307584	Solanum tuberosum			

BAA13547.1	D88156	Hyoscyamus niger	AAC35951.1	AF079355	Mesembryanthemum crystalli
BAA85844.1	AB026544	Hyoscyamus niger	CAC09576.1	AJ298988	Fagus sylvatica
CAB52307.1	AJ245634	Solanum tuberosum	CAA72341.1	Y11607	Medicago sativa
CAC19810.1	AJ292343	Solanum tuberosum	AAD17804.1	AF092431	Lotus japonicus
AAA33282.1	I20474	Datura stramonium	AAD17805.1	AF092432	Lotus japonicus
AAB09776.1	I20485	Hyoscyamus niger	CAC10358.1	AJ277086	Nicotiana tabacum
BAA85845.1	AB026545	Hyoscyamus niger	CAC10359.1	AJ277087	Nicotiana tabacum
CAA45866.1	X64566	Cuphea lanceolata	AAC36697.1	AF075579	Mesembryanthemum crystalli
CAA45793.1	X64463	Brassica napus	AAG43835.1	AF213455	Zea mays
AAB20114.2	S60064	Brassica napus	AAC36698.1	AF075580	Mesembryanthemum crystalli
CAA74176.1	Y13861	Nicotiana tabacum	CAB90633.1	AJ277743	Fagus sylvatica
CAA05816.1	AJ003025	Oryza sativa	AAC36700.1	AF075582	Mesembryanthemum crystalli
CAA74177.1	Y13862	Nicotiana tabacum	CAC09575.1	AJ298987	Fagus sylvatica
CAA05879.1	AJ003124	Petunia x hybrida	AAC26828.1	AF075603	Oryza sativa
AAC78100.1	AF093628	Oryza sativa	AAC36699.1	AF075581	Mesembryanthemum crystallinum
CAA64729.1	X95462	Brassica napus	AAB93832.1	U81960	Zea mays
AAB05206.1	I22766	Medicago truncatula	SEQ ID NO. 959		
AAB05205.1	I22765	Medicago truncatula	CAA06756.1	AJ005899	Nicotiana tabacum
SEQ ID NO. 949			CAA06757.1	AJ005900	Nicotiana tabacum
AAF61374.1	AF133267	Thlaspi caerulescens	AAD56039.1	AF184068	Citrus limon
AAD30548.1	AF136579	Lycopersicon esculentum	SEQ ID NO. 964		
AAF97509.1	AF246266	Lycopersicon esculentum	CAA71238.1	Y10156	Brassica napus
AAC17441.1	AF065444	Pisum sativum	CAB62165.1	AJ223307	Brassica napus
AAF97510.1	AF246266	Lycopersicon esculentum	CAA71237.1	Y10155	Brassica napus
AAD30549.1	AF136580	Lycopersicon esculentum	AAC49181.1	U39289	Brassica napus
AAG09635.1	AY007281	Medicago truncatula	AAC49182.1	U39319	Brassica napus
SEQ ID NO. 953			SEQ ID NO. 970		
AAC18941.1	AF058757	Zea mays	AAF21982.1	AF115543	Populus tremula x Populus
SEQ ID NO. 954			tremuloides		
AAG43550.1	AF211532	Nicotiana tabacum	CAB55535.1	AJ011794	Zea mays
BAA96875.1	AB045121	Oryza sativa	SEQ ID NO. 972		
BAA78746.1	AB023482	Oryza sativa	CAA06216.1	AJ004916	Prunus avium
BAA85438.1	AF000616	Oryza sativa	AAB69323.1	AF012867	Petroselinum crispum
BAA77204.1	AB026262	Cicer arletinum	AAB69322.2	AF012866	Petroselinum crispum
SEQ ID NO. 958			SEQ ID NO. 973		
AAD11430.1	AF097667	Mesembryanthemum crystallinum	AAG13424.1	AC051634	Oryza sativa
CAB90634.1	AJ277744	Fagus sylvatica			

SEQ ID NO. 974	AF024512	Oryza sativa	SEQ ID NO. 978	M68929	Mitochondrion Marchantia polymorpha
SEQ ID NO. 976			SEQ ID NO. 981	AF040700	Oryza sativa
BAA32557.1	AB017159	Daucus carota			
AAA82743.1	U19481	Citrus maxima			
CAA59008.1	X84226	Nicotiana tabacum			
CAA52976.1	X75082	Solanum tuberosum			
BAA82390.1	AP000367	Oryza sativa	SEQ ID NO. 983		Spinacia oleracea
CAA59010.1	X84228	Beta vulgaris	AAA74715.1	M64682	Spinacia oleracea
CAA59009.1	X84227	Populus x generosa	AAA34041.1	M57413	Spinacia oleracea
BAA07328.1	D38132	Cucurbita sp.	CAA40019.1	X56691	Plastid Marchantia polymor
			CAA28130.1	X04465	
SEQ ID NO. 977			SEQ ID NO. 984		
AAG49341.1	AF319457	Petroselinum crispum	BAA88222.1	AB028650	Nicotiana tabacum
AAB71526.1	U94781	Helianthus annuus	CAA78386.1	Z13996	Petunia x hybrida
AAK21311.1	AF338254	Petroselinum crispum	CAA78387.1	Z13997	Petunia x hybrida
ABD31926.1	AF147738	Zea mays	CAA64615.1	X95297	Lycopersicon esculentum
AAB93521.1	U94783	Helianthus annuus	CAB43399.1	AJ006292	Antirrhinum majus
AAF43440.1	AF233886	Vallisneria gigantea	AAK19616.1	AF336283	Gossypium hirsutum
AAD17931.2	AF104924	Zea mays	AAK19611.1	AF336278	Gossypium hirsutum
AAB71529.1	U94785	Helianthus annuus	CAA64614.1	X95296	Lycopersicon esculentum
BAA87057.1	AB034154	Chara corallina	CAA72218.1	Y11415	Oryza sativa
BAB03273.1	AB007459	Chara corallina	CAA67575.1	X99134	Lycopersicon esculentum
AAB71527.1	U94782	Helianthus annuus	CAA72217.1	Y11414	Oryza sativa
AAB71528.1	U94784	Helianthus annuus	CAA66952.1	X98308	Lycopersicon esculentum
AAC27525.1	AF077352	Chlamydomonas reinhardtii	BAA88224.1	AB028652	Nicotiana tabacum
AAB53062.1	U94398	Acetabularia cliftonii	BAA88221.1	AB028649	Nicotiana tabacum
AAD34597.1	AF147739	Zea mays	CAA72187.1	Y11352	Oryza sativa
AAB53061.1	U94397	Acetabularia cliftonii	BAA23337.1	D88617	Oryza sativa
AAF43441.1	AF233887	Vallisneria gigantea	BAA81733.2	AB029162	Glycine max
CAA47477.1	X67103	Anemia phyllitidis	BAA81732.1	AB029161	Glycine max
CAA47476.1	X67102	Anemia phyllitidis	BAA81731.1	AB029160	Glycine max
AA92114.1	U48788	Gossypium hirsutum	BAA81730.1	AB029159	Glycine max
AA92121.1	U48786	Vigna mungo	BAA81736.1	AB029165	Glycine max
AA92117.1	U48787	Triticum aestivum	CAA72185.1	Y11350	Oryza sativa
AA92111.1	U48789	Azolla rubra	AA813574.1	AC037425	Oryza sativa
AA92120.1	U48785	Vigna mungo	AAB41101.1	U72762	Nicotiana tabacum
AA92119.1	U48782	Trifolium subterraneum	BAA88223.1	AB028651	Nicotiana tabacum
AA92115.1	U48790	Nitella cristata	CAA50221.1	X70876	Hordeum vulgare

AAK19619.1	AF3336286	Gossypium hirsutum	AA55577.1	AF184270	Daucus carota
BAA23338.1	D88618	Oryza sativa	CAA51192.1	X'2594	Matthiola incana
AAG36774.1	AF210616	Zea mays	CAA55628.1	X78994	Medicago sativa
CAA50224.1	X70879	Hordeum vulgare	AAC49929.1	AF022142	Petunia x hybrida
CAA50222.1	X70877	Hordeum vulgare	CAA43027.1	X60512	Petunia x hybrida
AAA33500.1	M73028	Zea mays	CAA51191.1	X72593	Callistephus chinensis
CAA65525.1	X96749	Oryza sativa	CAA53580.1	X75966	Vitis vinifera
CAA67600.1	X99210	Lycopersicon esculentum	CAA41146.1	X58138	Hordeum vulgare
			AAD56580.1	AF184273	Daucus carota
SEQ ID NO. 985			BAR20143.1	AB003779	Perilla frutescens
CAA69598.1	X08273	Digitalis lanata	AAD56581.1	AF184274	Daucus carota
CAA59468.1	X85185	Catharanthus roseus	BAA21897.1	D83041	Ipomoea nil
AAA57045.1	L29469	Oryza sativa			
AAC05639.1	AF052206	Chlamydomonas reinhardtii	SEQ ID NO. 988		
AAA57046.1	L29470	Oryza sativa	AAB63030.1	U83921	Daucus carota
CAA48638.1	X68678	Zea mays	AAF37386.1	AF134835	Medicago truncatula
AAD22975.1	AF126551	Solanum tuberosum subsp. tuberosum	BAA76896.1	AB022687	Lycopersicon esculentum
			BAA76895.1	AB022686	Lycopersicon esculentum
AAAG3403.1	M55021	Zea mays	AAC18914.1	U94748	Petunia x hybrida
CAA52414.1	X74403	Phaseolus vulgaris	AAB70241.1	AF016845	Lycopersicon esculentum
AAAG3543.1	M55019	Lycopersicon esculentum	AAF27919.1	AF220203	Malus x domestica
AAA57044.1	L29471	Oryza sativa			
AAF00471.1	AF178458	Lupinus luteus	SEQ ID NO. 989		
CAA76054.1	Y16088	Lupinus luteus	CAA70815.1	Y09602	Hordeum vulgare
AAF65770.1	AF242312	Euphorbia esula	CAB59202.1	X78878	Hordeum vulgare
AAB51386.1	U92087	Solanum commersonii	BAB08188.1	AP002539	Oryza sativa
AAA62706.1	M55018	Brassica napus	CAA55478.1	X78877	Hordeum vulgare
AAA64430.1	L32095	Vicia faba	AAD22150.1	AF061282	Sorghum bicolor
CAA10766.1	AJ132763	Pseudotsuga menziesii	AAF44708.1	AF242849	Lycopersicon esculentum
AAG01536.1	AF291180	Capsicum annuum	CAA70816.1	Y09603	Hordeum vulgare
CAA65889.1	X97255	Digitalis lanata	AAD22151.1	AF061282	Sorghum bicolor
CAA78459.1	Z14081	Nicotiana tabacum	CAB58992.1	X78876	Hordeum vulgare
			AAD01265.1	AF006080	Solanum berthaultii
SEQ ID NO. 987			AAD01263.1	AF006078	Solanum berthaultii
CAC14568.1	AJ237848	Brassica napus	AAF64227.1	AF248647	Lycopersicon pennellii
BAA81862.1	AB026295	Oryza sativa	AAD01264.1	AF006079	Solanum berthaultii
CAA49353.1	X69664	Malus sp.	AAD22164.1	AF061282	Sorghum bicolor
CAA61486.1	X89199	Bromheadia finlaysonianha	AAD42963.2	AF141384	Matricaria chamomilla
AAB39995.1	U82432	Dianthus caryophyllus	AAA32940.1	J03897	Hordeum vulgare
CAA49839.1	X70378	Dianthus caryophyllus	BAA04510.1	D17586	Oryza sativa
CAA51190.1	X72592	Dianthus caryophyllus	CAA70817.1	Y09604	Hordeum vulgare

BAA04511.1	D17587	Oryza sativa	AAB03266.1	U44773	Zea mays
BAA01757.1	D10985	Oryza sativa	CAA52293.1	X74217	Zea mays
BAB19126.1	AP002839	Oryza sativa	AAF28800.1	AF112888	Catharanthus roseus
BAA94235.1	AP001633	Oryza sativa	AAD02839.1	AF082991	Avena sativa
CAB71127.1	AJ271659	Cicer arietinum	AAG00614.1	AF293849	Secale cereale
AA32064.1	U49741	Vigna radiata	CAA40057.1	X56733	Trifolium repens
AA32062.1	U49382	Vigna radiata	CAA55196.1	X78433	Avena sativa
CAA92216.1	Z68130	Pisum sativum	AAB71381.1	U95298	Manihot esculenta
SEQ ID NO. 990			AAK07429.1	AF321287	Musa acuminata
AAD16018.1	AF081514	Taxus canadensis	CAA79989.2	Z21977	Brassica napus
SEQ ID NO. 991			CAA57913.1	X82577	Brassica napus
AAF21901.1	AF109392	Brassica napus	AAB38784.1	U72154	Brassica nigra
SEQ ID NO. 995			CAC08209.1	AJ005950	Cicer arietinum
CAA42596.1	X59970	Brassica napus	AAA84906.1	U28047	Oryza sativa
BAA88179.1	AP000836	Oryza sativa	SEQ ID NO. 1004		
CAA65502.1	X96727	Nicotiana tabacum	AAF19196.1	AF206320	Musa acuminata
CAA47720.1	X67310	Solanum tuberosum	AAB71208.1	U63550	Fragaria x ananassa
CAA74777.1	Y14432	Nicotiana tabacum	AAF63756.1	AF243475	Vitis vinifera
CAA74776.1	Y14431	Nicotiana tabacum	AAF19195.1	AF206319	Musa acuminata
CAA76076.1	Y16126	Lycopersicon esculentum	CAA70735.1	Y09541	Zinnia elegans
SEQ ID NO. 1003			CAA63496.1	X92943	Musa acuminata
AAA91166.1	U39228	Prunus avium	AAA86241.1	U41472	Medicago sativa
BAA11831.1	D83177	Costus speciosus	CAA47630.1	X67158	Nicotiana tabacum
AAF04007.1	AF163097	Dalbergia cochinchinensis	CAA43414.1	X61102	Nicotiana tabacum
AAF34650.1	AF221526	Prunus serotina	CAA43413.1	X61101	Nicotiana tabacum
AAF03675.1	AF149311	Rauvolfia serpentina	CAA47631.1	X67159	Nicotiana tabacum
AAG25897.1	AF170087	Cucurbita pepo	SEQ ID NO. 1005		
BAA78708.1	AB003089	Polygonum tinctorium	AAK07429.1	AF321287	Musa acuminata
CAA64442.1	X94986	Manihot esculenta	AAC69619.1	AF072736	Pinus contorta
AAB22162.1	S35175	Manihot esculenta	AAF04007.1	AF163097	Dalbergia cochinchinensis
AAD09850.1	U44087	Zea mays	BAA78708.1	AB003089	Polygonum tinctorium
AAC49177.1	U33817	Sorghum bicolor	BAA11831.1	D83177	Costus speciosus
AAC69619.1	AF072736	Pinus contorta	AAF03675.1	AF149311	Rauvolfia serpentina
CAA40058.1	X56734	Trifolium repens	AAG00614.1	AF293849	Secale cereale
AA87339.1	I41869	Hordeum vulgare	AAA91166.1	U39228	Prunus avium
AA65946.1	U25157	Zea mays	AAG5897.1	AF170087	Cucurbita pepo
AAD10503.1	U33816	Zea mays	AAF34650.1	AF221526	Prunus serotina
			AAC49177.1	U33817	Sorghum bicolor
			AAB22162.1	S35175	Manihot esculenta



AAA87339.1	I41869	Hordeum vulgare	BAA93465.1	AB028077	Physcomitrella patens
CRA64442.1	X94986	Manihot esculenta	AAD37699.1	AF145730	Oryza sativa
AAD02839.1	AF082991	Avena sativa	BAA21017.1	D26578	Daucus carota
AAB03266.1	U44773	Zea mays	CRA63222.1	X92489	Glycine max
AAD09850.1	U44087	Zea mays	SEQ ID NO. 1007		
CRA52293.1	X74217	Zea mays	AAB88617.1	AF034946	Zea mays
AAD10503.1	U33816	Zea mays	AAA34125.1	L23762	Lycopersicon esculentum
AAA65946.1	U25157	Zea mays	AAA64427.1	L29077	Pisum sativum
AAF28800.1	AF112888	Catharanthus roseus	CRA51821.1	X73419	Lycopersicon esculentum
CRA40058.1	X56734	Trifolium repens	AAD51109.1	AF176040	Mesembryanthemum crystalli
CRA55196.1	X78433	Avena sativa	AAB02168.1	U15971	Oryza sativa
CRA40057.1	X56733	Trifolium repens	AAA86089.1	U17250	Brassica oleracea
CAR79989.2	Z21977	Brassica napus	AAD42941.1	AF091621	Catharanthus roseus
AAB71381.1	U95298	Manihot esculenta	BAA21006.1	D17786	Oryza sativa
CRA57913.1	X82577	Brassica napus	AAF73016.1	AF262934	Avicennia marina
AAB38784.1	U72154	Brassica nigra	AAA34310.1	M62720	Triticum aestivum
AAA84906.1	U28047	Oryza sativa	BAB40310.1	AB026055	Nicotiana tabacum
CAC08209.1	AJ005950	Cicer arietinum	BAB40311.1	AB026056	Nicotiana tabacum
SEQ ID NO. 1006			CAA58111.1	X82938	Lycopersicon esculentum
AAG43283.1	AF139210	Oryza sativa	CAA06493.1	AJ005348	Cicer arietinum
AAD37698.1	AF145729	Oryza sativa	AAC12662.1	AF032468	Zea mays
AAF01765.1	AF184278	Glycine max	BAA90392.1	AP001081	Oryza sativa
AAD37695.1	AF145726	Oryza sativa	CAA05772.1	AJ002959	Zea mays
AAF19980.1	AF211193	Oryza sativa	AAF22280.1	AF165420	Mesembryanthemum crystallinum
AAK31270.1	AC079890	Oryza sativa	AAF03236.1	AF180143	Glycine max
CAA65456.2	X96681	Oryza sativa	AAG23847.1	AY004247	Lycopersicon esculentum
BAA93466.1	AB028078	Physcomitrella patens	AAB63513.1	AF008910	Prunus armeniaca
CRA64491.1	X95193	Pimpinella brachycarpa	AAA34309.1	M28059	Triticum aestivum
CRA62608.1	X91212	Lycopersicon esculentum	CAA10494.1	AJ131733	Pseudotsuga menziesii
CRA64152.1	X94375	Pimpinella brachycarpa	AAC32141.1	AF051240	Picea mariana
BAA05625.1	D26576	Daucus carota	SEQ ID NO. 1008		
AAA63768.2	AF339748	Helianthus annuus	CRA63222.1	X92489	Glycine max
AAD38144.1	AF139497	Prunus armeniaca	CRA64221.1	X94449	Pimpinella brachycarpa
CAA06728.1	AJ005833	Craterostigma plantagineum	CAA64152.1	X94375	Pimpinella brachycarpa
AAD37700.1	AF145731	Oryza sativa	CAA64491.1	X95193	Pimpinella brachycarpa
BAA93462.1	AB028074	Physcomitrella patens	CAA65456.2	X96681	Oryza sativa
BAA93463.1	AB028075	Physcomitrella patens	AAF19980.1	AF211193	Oryza sativa
BAB18171.1	AB042769	Zinnia elegans	AAK31270.1	AC079890	Oryza sativa
BAA05624.1	D26575	Daucus carota	AAA74017.1	U30475	Glycine max
BAA93467.1	AB028079	Physcomitrella patens			

BAA93463.1	AB028075	Physcomitrella patens	AAF34538.1	AF195817	Beta vulgaris
AAD37695.1	AF145726	Oryza sativa	AAF34527.1	AF195806	Vigna radiata
AAD37700.1	AF145731	Oryza sativa	AAF34530.1	AF195809	Vigna radiata
CAA06728.1	AJ005833	Craterostigma plantagineum	AAF34526.1	AF195805	Lens culinaris
AAD37696.1	AF145727	Oryza sativa	AAF45142.1	AF195818	Glycine max
BAB18169.1	AB042767	Zinnia elegans	AAB94591.1	AF022462	Glycine max
CAA06717.1	AJ005820	Craterostigma plantagineum	AAF45143.1	AF195819	Glycine max
BAA05622.1	D26573	Daucus carota	AAF34533.1	AF195812	Pisum sativum
BAA93462.1	AB028074	Physcomitrella patens	AAF34534.1	AF195813	Lupinus albus
AAD37698.1	AF145729	Oryza sativa	AAF34537.1	AF195816	Beta vulgaris
CAA64417.1	X94947	Lycopersicon esculentum	AAF34536.1	AF195815	Trifolium repens
BAA21017.1	D26578	Daucus carota	AAF34525.1	AF195804	Lens culinaris
BAA05624.1	D26575	Daucus carota	AAF34535.1	AF195814	Trifolium repens
AAF01764.2	AF184277	Glycine max	CAB56503.1	AJ238612	Catharanthus roseus
BAA93468.1	AB028080	Physcomitrella patens	CAA50155.1	X70824	Solanum melongena
BAA05625.1	D26576	Daucus carota	AAD56282.1	AF155332	Petunia x hybrida
BAA93467.1	AB028079	Physcomitrella patens	AAC39318.1	AF029858	Sorghum bicolor
AAF01765.1	AF184278	Glycine max	BAB40323.1	AB037244	Asparagus officinalis
BAA93461.1	AB028073	Physcomitrella patens	SEQ ID NO. 1010		
BAB18171.1	AB042769	Zinnia elegans	AAC37479.1	L41355	Brassica rapa
BAA93464.1	AB028076	Physcomitrella patens	AAA96316.1	U51119	Brassica rapa
BAA05623.1	D26574	Daucus carota	CAA79954.1	Z21954	Vigna unguiculata
BAA93466.1	AB028078	Physcomitrella patens	BAA19610.1	D64115	Glycine max
BAA93460.1	AB028072	Physcomitrella patens	BAA19608.1	D31700	Glycine max
AAD37697.1	AF145728	Oryza sativa	AAF23127.1	AF198389	Lycopersicon esculentum
SEQ ID NO. 1009			CAA60610.1	X87126	Zea mays
BAA12159.1	D83968	Glycine max	BAA09666.1	D63342	Zea mays
BAA13076.1	D86351	Glycine max	BAA01472.1	D10622	Zea mays
AAD38930.1	AF135485	Glycine max	AAF23126.1	AF198388	Lycopersicon esculentum
BAA84071.1	AB028151	Antirrhinum majus	CAA89697.1	Z49697	Ricinus communis
BAA22423.1	AB001380	Glycyrrhiza echinata	AAA97905.1	U51853	Glycine max
BAA74466.1	AB022733	Glycyrrhiza echinata	BAA69582.1	AP001073	Oryza sativa
BAA84072.1	AB028152	Torenia hybrida	AAF72202.1	AF265551	Manihot esculenta
BAA93632.1	AB024931	Lotus japonicus	BAA07327.1	D38130	Zea mays
AAF34532.1	AF195811	Trifolium pratense	CAA11899.1	AJ224331	Castanea sativa
AAF34529.1	AF195808	Vigna radiata	CAA60634.1	X87168	Sorghum bicolor
AAF34528.1	AF195807	Vigna radiata	BAB21558.1	AB037156	Coix lacryma-jobi
AAF34531.1	AF195810	Trifolium pratense	BAA95416.1	AB039673	Helianthus annuus
AAD38929.1	AF135484	Glycine max	AAA33903.1	J03469	Oryza sativa
BAA76380.1	AB023636	Glycyrrhiza echinata	AAB24010.1	S49967	Oryza

AAB66355.1	U54702	Oryza sativa	BAB18937.1	AB052228	Cucumis melo var. reticulata
AAF64480.1	AF241536	Ipomoea batatas	BAA85817.1	AB026498	Cucumis sativus
AAD13812.1	AF117334	Ipomoea batatas	AAC31123.1	AF032448	Malus x domestica
AAA97906.1	U51854	Glycine max	AAF08300.1	AF113748	Musa acuminata
AAB71505.1	U82220	Pyrus communis	AAF61919.1	AF227742	Mangifera indica
AAK15090.1	AF240007	Sesamum indicum	AAD37577.1	AF141929	Pelargonium x hortorum
AAA97907.1	U51855	Glycine max	AAD37576.1	AF141928	Pelargonium x hortorum
CAA72790.1	Y12068	Hordeum vulgare	AAC02213.1	AF043084	Lycopersicon esculentum
AAA32672.1	L16624	Ambrosia artemisiifolia	AAA85479.1	U41103	Lycopersicon esculentum
AAK30004.1	AY028994	Dianthus caryophyllus	AAB68819.1	U63291	Rumex palustris
AAD33907.1	AF143677	Artemisia vulgaris	CAA69646.1	Y08359	Rumex palustris
BAB18768.1	AB038394	Triticum aestivum	AAC39497.1	AF047476	Brassica oleracea
BAB18766.1	AB038392	Triticum aestivum	AAB97160.1	AF022727	Nicotiana tabacum
CAA50437.1	X71124	Carica papaya	AAC02214.1	AF043085	Lycopersicon esculentum
AAC69278.1	AF064734	Dianthus caryophyllus	AAB39386.1	U47279	Lycopersicon esculentum
BAB18767.1	AB038393	Triticum aestivum	CAB76929.1	AJ276294	Citrus sinensis
CAA40860.1	X57658	Oryza sativa	BAA96745.1	AB035806	Dianthus caryophyllus
AAA33911.1	J05595	Oryza sativa	AAD31396.1	AF118843	Lycopersicon esculentum
BAB18769.1	AB038395	Triticum aestivum	AAC31213.3	AF026267	Nicotiana tabacum
BAB18765.1	AB038391	Triticum aestivum	BAB13718.1	AB040406	Zea mays
AAA16120.1	L16450	Solanum tuberosum	AAD31397.1	AF118844	Lycopersicon esculentum
AAC32853.1	AF083253	Lycopersicon esculentum	BAA85819.1	AB026500	Cucumis sativus
AAF23128.1	AF198390	Lycopersicon esculentum	BAA90552.1	AB031029	Prunus mume
AAG38521.1	AF283536	Citrus x paradisi	BAA90551.1	AB031028	Prunus mume
CAA48037.1	X67844	Solanum tuberosum	AAD45346.1	AF159172	Rosa hybrid cultivar
SEQ ID NO. 1011					
AAC31157.1	AF047477	Brassica oleracea	AAG34797.1	AF243362	Glycine max
AAG41977.1	AF311942	Carica papaya	AAG34798.1	AF243363	Glycine max
AAB94773.1	AF039746	Pisum sativum	AAG34803.1	AF243368	Glycine max
CAA06723.1	AJ005829	Pisum sativum	AAF64450.1	AF239928	Euphorbia esula
AAD03598.1	AF098272	Vigna radiata	AAG34801.1	AF243366	Glycine max
BAA37137.1	AB015497	Passiflora edulis	AAG34804.1	AF243369	Glycine max
BAB13735.1	AB049128	Cucumis melo var. reticulatus	AAG34796.1	AF243361	Glycine max
BAA85818.1	AB026499	Cucumis sativus	AAG34809.1	AF243374	Glycine max
AAD26899.1	AF055894	Phalaenopsis sp. 'True Lady'	AAG34807.1	AF243372	Glycine max
AAB72193.1	AF013979	Oryza sativa	AAG34810.1	AF243375	Glycine max
AAB96765.2	AF039921	Nicotiana tabacum	AAG34844.1	AF244701	Zea mays
AAD12777.1	AF051938	Solanum tuberosum	AAG34831.1	AF244688	Zea mays
AAF28893.1	AF124527	Prunus persica	AAC18566.1	AF048978	Glycine max
BAA37136.1	AB015496	Passiflora edulis	AAG34832.1	AF244689	Zea mays

AAG34808.1	AF243373	Glycine max	SEQ ID NO. 1018	Citrus sinensis
AAG34837.1	AF244694	Zea mays	CAA87068.1	Impatiens balsamina
AAG34800.1	AF243365	Glycine max	AAK15005.1	Mesembryanthemum crystalli
AAG34836.1	AF244693	Zea mays	AAB61593.1	Zea mays
CAA04391.1	AJ000923	Carica papaya	AAA33462.1	Spinacia oleracea
CAA71784.1	Y10820	Glycine max	AAA34028.1	Chlamydomonas reinhardtii
AAG34849.1	AF244706	Zea mays	AAC49171.1	Chlamydomonas reinhardtii
AAA68430.1	J03679	Solanum tuberosum	AAA33085.1	Chlamydomonas reinhardtii
AAG34802.1	AF243367	Glycine max	CAA26281.1	Silene latifolia subsp. al
CAC24549.1	AJ296343	Cichorium intybus x Cichorium	AAA33665.1	Pisum sativum
endivia			CAA52980.1	Triticum aestivum
CAA09187.1	AJ010448	Alopecurus myosuroides	AAA33461.1	Zea mays
AAE22518.1	AF118925	Papaver somniferum	BAA32348.1	Zea mays
CAA09188.1	AJ010449	Alopecurus myosuroides	BAA06456.1	Oryza sativa
AAE22517.1	AF118924	Papaver somniferum	AAA33460.1	Zea mays
AAE22647.1	AF193439	Lycopersicon esculentum	AAA33459.1	Zea mays
			BAA06436.1	Oryza sativa
			CAA99756.1	Lycopersicon esculentum
SEQ ID NO. 1016			BAA19865.1	Oryza sativa
AAC36698.1	AF075580	Mesembryanthemum crystallinum	AAD02175.1	Capsicum annuum
CAA72341.1	Y11607	Medicago sativa	BAA90760.1	Ipomoea nil
AAG43835.1	AF213455	Zea mays	CAA73265.1	Physcomitrella patens
AAD17804.1	AF092431	Lotus japonicus	AAB65699.1	Oryza sativa
AAD17805.1	AF092432	Lotus japonicus		
AAC36697.1	AF075579	Mesembryanthemum crystallinum	SEQ ID NO. 1020	
CAB90633.1	AJ277743	Fagus sylvatica	AAF74567.1	Solanum tuberosum
CAC10358.1	AJ277086	Nicotiana tabacum	AAF74566.1	Nicotiana tabacum
CAC10359.1	AJ277087	Nicotiana tabacum	AAF74565.1	Spinacia oleracea
AAC36700.1	AF075582	Mesembryanthemum crystallinum	AAF74568.1	Zea mays
CAC09575.1	AJ298987	Fagus sylvatica	AAG43998.1	Apium graveolens var. dulce
CAB90634.1	AJ277744	Fagus sylvatica	BAB19864.1	Oryza sativa
AAC35951.1	AF079355	Mesembryanthemum crystallinum	CAA09419.1	Lycopersicon esculentum
AAD11430.1	AF097667	Mesembryanthemum crystallinum	CAB52689.1	Lycopersicon esculentum
AAB93832.1	U81960	Zea mays	CAA53192.1	Chlorella kessleri
AAC26828.1	AF075603	Oryza sativa	CAA68813.1	Chlorella kessleri
AAC36699.1	AF075581	Mesembryanthemum crystallinum	AAA79761.1	Ricinus communis
CAC09576.1	AJ298988	Fagus sylvatica	CAB06079.1	Picea abies
			CAB07812.1	Vicia faba
SEQ ID NO. 1017			CAA47324.1	Nicotiana tabacum
CAA9516.1	Z71997	Medicago sativa	CAA39036.1	Chlorella kessleri
AAB36543.1	U77935	Phaseolus vulgaris	AAB06594.1	Medicago truncatula

CAC04511.1	AJ001061	Vitis vinifera	CAC19810.1	AJ292343	Solanum tuberosum
AAA79857.1	L08188	Ricinus communis	BAA5845.1	AB026545	Hyoscyamus niger
CAA70777.1	Y09590	Vitis vinifera	AAB09776.1	L20485	Hyoscyamus niger
BAB19863.1	AB052884	Oryza sativa	CAA45866.1	X64566	Cuphea lanceolata
BAB19862.1	AB052883	Oryza sativa	CAA45793.1	X64463	Brassica napus
CAB52690.1	AJ132225	Lycopersicon esculentum	AAB20114.2	S60064	Brassica napus
BAA85398.1	AP000615	Oryza sativa	CAA74176.1	Y13861	Nicotiana tabacum
CAB52688.1	AJ132223	Lycopersicon esculentum	CAA05879.1	AJ003124	Petunia x hybrida
AAD55054.1	AF173655	Beta vulgaris	CAA74177.1	Y13862	Nicotiana tabacum
			CAA05816.1	AJ003025	Oryza sativa
SEQ ID NO. 1021			AAB82767.1	U89509	Zea mays
CAA96516.1	Z71997	Medicago sativa	CAA64729.1	X95462	Brassica napus
AAB36543.1	U77935	Phaseolus vulgaris	AAB82766.1	U89510	Hordeum vulgare
SEQ ID NO. 1022			SEQ ID NO. 1026		
AAG43549.1	AF211531	Nicotiana tabacum	CAB51555.1	AJ242531	Triticum aestivum
AAG43548.1	AF211530	Nicotiana tabacum	BAA90749.1	AB030956	Oryza sativa
BAA78738.1	AB023482	Oryza sativa	CAB51557.1	AJ242530	Zea mays
CAC12822.1	AJ299252	Nicotiana tabacum			
AAE76898.1	AF274033	Atriplex hortensis	SEQ ID NO. 1027		
BAB16083.1	AB036883	Oryza sativa	AAC63113.1	AF0000307	Brassica napus
BAB03248.1	AB037183	Oryza sativa	AAC63111.1	AF0000305	Brassica napus
AAC24587.1	AF071893	Prunus armeniaca	AAC63112.1	AF0000306	Brassica napus
AAE23899.1	AF193803	Oryza sativa	AAA33342.2	M84135	Flaveria chloraefolia
AAK01089.1	AF298231	Hordeum vulgare	AAA61538.1	U10275	Flaveria bidentis
CAB96899.1	AJ251249	Catharanthus roseus	AAA33343.1	M84136	Flaveria chloraefolia
CAB96900.1	AJ251250	Catharanthus roseus	AAA87399.1	U10277	Flaveria bidentis
BAA07321.1	D38123	Nicotiana tabacum			
AAF63205.1	AF245119	Mesembryanthemum crystallinum	SEQ ID NO. 1029		
AAG43545.1	AF211527	Nicotiana tabacum	AAC98969.1	AF047428	Oryza sativa
AAC62619.1	AF057373	Nicotiana tabacum	AAC98962.1	AF045571	Oryza sativa
BAA99376.1	AP002526	Oryza sativa	AAD31844.1	AF133118	Oryza sativa
			BAB08194.1	AP002539	Oryza sativa
			BAA96755.1	AP002521	Oryza sativa
SEQ ID NO. 1025			SEQ ID NO. 1031		
AAA33280.1	L20475	Datura stramonium	AAF66242.1	AF243180	Lycopersicon esculentum
AAA33281.1	L20473	Datura stramonium	CAA80963.1	Z25471	Pisum sativum
CAC34420.1	AJ307584	Solanum tuberosum	AAD10251.1	AF031195	Triticum aestivum
BAA13547.1	D88156	Hyoscyamus niger	AAC64163.1	AF093537	Zea mays
BAA85844.1	AB026544	Hyoscyamus niger	CAA10134.1	AJ012693	Cicer arietinum
AAA33282.1	L20474	Datura stramonium			
CAB52307.1	AJ245634	Solanum tuberosum			

AAF56243.1	AF243181	Lycopersicon esculentum	AAC39512.1	AF043284	Gossypium hirsutum
CAB65280.1	AJ248323	Medicago sativa subsp. x varia	CAC19184.1	AJ291817	Cicer arietinum
AAC32448.1	U76296	Spinacia oleracea	AAF35901.1	AF230332	Zinnia elegans
SEQ ID NO. 1034			CAA69105.1	Y07782	Oryza sativa
BAA23143.1	D87261	Oryza sativa	CAB46492.1	AJ243340	Lycopersicon esculentum
BAA23142.1	D87260	Oryza sativa	CAB43197.1	AJ239068	Lycopersicon esculentum
SEQ ID NO. 1035			AAC64201.1	AF096776	Lycopersicon esculentum
AAG45501.1	AY012513	Populus balsamifera subsp.	AAB38074.1	U30477	Oryza sativa
trichocarpa			AAF32410.1	AF230277	Triphysaria versicolor
AAG43046.1	AY012515	Populus x canescens	AAB81662.1	U85246	Oryza sativa
SEQ ID NO. 1039			CAA06271.2	AJ004997	Lycopersicon esculentum
AAA97411.1	U51918	Pisum sativum	AAF32409.1	AF230276	Triphysaria versicolor
SEQ ID NO. 1042			CAA04385.1	AJ000885	Brassica napus
CAA42234.1	X59714	Zea mays	AAD13633.1	AF059489	Lycopersicon esculentum
SEQ ID NO. 1045			AAF17571.1	AF202120	Regnellidium diphyllum
BAA88182.1	AP000836	Oryza sativa	AAG13983.1	AF297522	Prunus avium
SEQ ID NO. 1046			AAC96081.1	AF049354	Nicotiana tabacum
AAC96077.1	AF049350	Nicotiana tabacum	AAD49956.1	AF167360	Rumex palustris
AAC96079.1	AF049352	Nicotiana tabacum	AAF32411.1	AF230278	Triphysaria versicolor
AAC96078.1	AF049351	Nicotiana tabacum	AAF35902.1	AF230333	Zinnia elegans
AAB37749.1	U30460	Cucumis sativus	AAD13632.1	AF059488	Lycopersicon esculentum
AAG32920.1	AF184232	Lycopersicon esculentum	BAB32732.1	AB049406	Eustoma grandiflorum
AAG01875.1	AF291659	Striga asiatica	CAC19183.1	AJ291816	Cicer arietinum
AAD47901.1	AF085330	Pinus taeda	CAC06433.1	AJ276007	Festuca pratensis
AAF21101.1	AF159563	Fragaria x ananassa	AAG32921.1	AF184233	Lycopersicon esculentum
AAB40637.1	U64893	Pinus taeda	AAF62182.1	AF247164	Oryza sativa
AAB40635.1	U64891	Pinus taeda	CAC06432.1	AJ276006	Festuca pratensis
AAB40634.1	U64890	Pinus taeda	SEQ ID NO. 1047		
AAB40636.1	U64892	Pinus taeda	BAA37171.1	AB022674	Oryza sativa
BAB19676.1	AB029083	Prunus persica	BAA37170.1	AB022673	Oryza sativa
AAC63088.1	U82123	Lycopersicon esculentum	AAA34031.1	J02849	Spinacia oleracea
AAG13982.1	AF297521	Prunus avium	CAA44226.1	X62368	Nicotiana tabacum
AAC33530.1	AF038815	Prunus armeniaca	CAA44214.1	X62339	Nicotiana tabacum
AAB37746.1	U30382	Cucumis sativus	CAA48414.1	X68340	Secale cereale
AAC33529.1	U93167	Prunus armeniaca	AAB21989.1	S93166	Chloroplast Nicotiana
			sylvestris		
			CAA48400.1	X68325	Secale cereale
			AAD54786.1	AF137379	Chloroplast Nephroselmis
			olivacea		
			AAB66886.1	AF010581	Oryza sativa

BAA57991.1	AB001684	Chlorella vulgaris	AAA47618.1	U73916	Linum usitatissimum
CAB38448.1	AJ236874	Plastid Prototheca wickerhamii	AAD25974.1	AF093647	Linum usitatissimum
			AAD25975.1	AF093648	Linum usitatissimum
SEQ ID NO. 1059			AAG09952.1	AF175389	Glycine max
CAA09001.1	AJ010110	Chlamydomonas reinhardtii	AAA91022.1	U27081	Linum usitatissimum
CAA34615.1	X16619	Chlamydomonas reinhardtii	AAD25968.1	AF093641	Linum usitatissimum
AAF43427.1	AF233374	Volvox carteri	AAA91021.1	U27081	Linum usitatissimum
			AAD25969.1	AF093642	Linum usitatissimum
SEQ ID NO. 1060			AAG01051.1	AF175394	Glycine max
AAA50763.1	U15605	Nicotiana glutinosa	AAD25965.1	AF093638	Linum usitatissimum
CAA08798.1	AJ009720	Solanum tuberosum	AAD25973.1	AF093646	Linum usitatissimum
AAG09951.1	AF175388	Glycine max	AAD25970.1	AF093643	Linum usitatissimum
AAK28810.1	AF310964	Linum usitatissimum	AAD25967.1	AF093640	Linum usitatissimum
AAK28812.1	AF310968	Linum usitatissimum	AAD25971.1	AF093644	Linum usitatissimum
AAK28811.1	AF310966	Linum usitatissimum	AAD25972.1	AF093645	Linum usitatissimum
AAK28803.1	AF310958	Linum usitatissimum	AAD25976.1	AF093649	Linum usitatissimum
AAK28806.1	AF310960	Linum usitatissimum			
AAK28804.1	AF310959	Linum usitatissimum	SEQ ID NO. 1061		
AAK28809.1	AF310962	Linum usitatissimum	AAA34025.1	M31480	Spinacia oleracea
AAK28808.1	AF310961	Linum usitatissimum	AAB41696.1	U69142	Spinacia oleracea
AAK28805.1	AF310960	Linum usitatissimum	CAA49425.1	X69770	Atriplex hortensis
CAA08797.1	AJ009719	Solanum tuberosum	CAA41376.1	X58462	Beta vulgaris
AAG43546.1	AF211528	Nicotiana tabacum	CAA41377.1	X58463	Beta vulgaris
CAC35339.1	AJ310164	Linum usitatissimum	BAB18543.1	AB043539	Avicennia marina
CAC35328.1	AJ310153	Linum usitatissimum	BAA21098.1	AB001348	Oryza sativa
CAC35337.1	AJ310162	Linum usitatissimum	AAB70010.1	AF017150	Amaranthus hypochondriacus
CAC35326.1	AJ310151	Linum usitatissimum	AAF73828.1	AF162665	Oryza sativa
CAC35332.1	AJ310157	Linum usitatissimum	BAB19052.1	AB044537	Oryza sativa
CAC35336.1	AJ310161	Linum usitatissimum	AAB58165.1	AF000132	Amaranthus hypochondriacus
CAC35325.1	AJ310150	Linum usitatissimum	BAB18544.1	AB043540	Avicennia marina
CAC35327.1	AJ310152	Linum usitatissimum	BAA05466.1	D26448	Hordeum vulgare
CAC35330.1	AJ310155	Linum usitatissimum	BAA96793.1	AB030939	Oryza sativa
CAC35338.1	AJ310163	Linum usitatissimum	CAA71003.1	Y09876	Nicotiana tabacum
CAC35329.1	AJ310154	Linum usitatissimum	AAG43988.1	AF215823	Zea mays
CAC35334.1	AJ310159	Linum usitatissimum	BAA96794.1	AB037421	Oryza sativa
CAC35333.1	AJ310158	Linum usitatissimum	AAC49268.1	U12196	Sorghum bicolor
CAC35321.1	AJ310150	Linum usitatissimum	CAA53076.1	X75327	Pisum sativum
CAC35331.1	AJ310156	Linum usitatissimum	AAB47571.1	U87848	Nicotiana plumbaginifolia
CAC35323.1	AJ310150	Linum usitatissimum	AAF08296.1	AF196292	Apium graveolens
AAD25966.1	AF093639	Linum usitatissimum	AAC49267.1	U12195	Sorghum bicolor
AAG01052.1	AF175395	Glycine max	CAA53075.1	X75326	Zea mays

AAG43027.1	AF323586	Oryza sativa	AAC24961.1	AF009337	Tradescantia virginiana
AAC03055.1	AF045770	Oryza sativa	AAF23900.1	AF194413	Oryza sativa
AAB33843.1	S77096	Brassica napus	AAF23901.2	AF194414	Oryza sativa
			AAC78558.1	AF030879	Solanum tuberosum
SEQ ID NO. 1062			CAA57157.1	X81394	Oryza sativa
CAA76555.1	Y16953	Sinapis alba	AAC25423.1	AF072908	Nicotiana tabacum
CAB58772.1	X83920	Brassica napus	BAA12715.1	D85039	Zea mays
CAB63073.1	X92102	Raphanus sativus	AAAG9507.1	U28376	Zea mays
AAB033378.1	U27107	Brassica napus	BAA81751.1	AB017517	Marchantia polymorpha
AAD42937.1	AF084971	Catharanthus roseus	BAA81749.1	AB017515	Marchantia polymorpha
CAB88492.1	Z48602	Nicotiana tabacum	CAA39936.1	X56599	Daucus carota
CAB88493.1	Z48603	Nicotiana tabacum	AAB49984.1	U90262	Cucurbita pepo
AAC49398.1	U46217	Petroselinum crispum	BAA81750.1	AB017516	Marchantia polymorpha
AAB80169.1	U10270	Zea mays	BAA81748.1	AB017515	Marchantia polymorpha
AAB40291.1	U42208	Oryza sativa	AAD17800.1	AF090835	Mesembryanthemum crystallinum
AAB00098.1	I01449	Glycine max	AAB80693.1	U69174	Glycine max
CAA58774.1	X83922	Brassica napus	AAD28192.2	AF115406	Solanum tuberosum
CAA58773.1	X83921	Brassica napus	BAA13440.1	D87707	Ipomoea batatas
AAK14790.1	AY027510	Catharanthus roseus	CAA07481.1	AJ007366	Zea mays
AAC49556.1	U04295	Oryza sativa	AAB88537.1	AF035944	Fragaria x ananassa
AAD42938.1	AF084972	Catharanthus roseus	CAA65500.1	X96723	Medicago sativa
AA334293.1	M28704	Triticum aestivum	AAAG1682.1	I27484	Zea mays
CAA71768.1	Y10809	Petroselinum crispum	AAB70706.1	U82087	Tortula ruralis
CAA52896.1	X74942	Lycopersicon esculentum	BAB16888.1	AB042550	Oryza sativa
CAA71770.1	Y10810	Petroselinum crispum	BAA85396.1	AF000615	Oryza sativa
BAA10928.1	D64051	Triticum aestivum	BAA12338.1	D84408	Zea mays
CAA52897.1	X74943	Lycopersicon esculentum	CAA57156.1	X81393	Oryza sativa
CAA52895.1	X74941	Lycopersicon esculentum	AAC05270.1	AF048691	Oryza sativa
CAB62402.1	Y15165	Zea mays	AAC49405.1	U08140	Vigna radiata
AAAI7488.1	U07933	Triticum aestivum	BAA13232.1	D87042	Zea mays
AAAG8429.1	M63999	Triticum aestivum	AAB80692.1	U69173	Glycine max
AAAI9103.1	U10466	Triticum aestivum	AAF21062.1	AF216527	Dunaliella tertiolecta
CAA71687.1	Y10685	Glycine max	AAK26164.1	AY027885	Cucumis sativus
			AAA33443.1	L15390	Zea mays
SEQ ID NO. 1063			CAA89202.1	Z49233	Chlamydomonas eugametos
CAA58750.1	X83869	Daucus carota	AAG46110.1	AC073166	Oryza sativa
AAB47181.1	S82324	Zea mays	BAA02698.1	D13436	Oryza sativa
BAA12691.1	D84507	Zea mays	BAA90814.1	AP001168	Oryza sativa
BAA12692.1	D84508	Zea mays	CAB46228.1	Y18055	Arachis hypogaea
AAG01179.1	AF289237	Zea mays	AAC49008.1	U24188	Lilium longiflorum
BAA22410.1	D38452	Zea mays	AAF19401.1	AF203479	Glycine max



AA052098.1	U70923	Nicotiana tabacum	CAA06999.1	AJ006378	Lycopersicon esculentum
SEQ ID NO. 1064			CAA07000.1	AJ006379	Lycopersicon esculentum
CAB43337.1	AJ006348	Fragaria x ananassa	CAA67430.1	X98930	Lycopersicon esculentum
AAC95009.1	AF074923	Fragaria x ananassa	CAA67429.1	X98929	Lycopersicon esculentum
CAA65827.1	X97189	Capsicum annuum	CAA76725.1	Y17276	Lycopersicon esculentum
AAA69909.1	U13055	Lycopersicon esculentum	CAA71234.1	Y10149	Lycopersicon esculentum
AAC12684.1	U76725	Pinus radiata	CAA06414.1	AJ005173	Lycopersicon esculentum
AAA80495.1	U20590	Lycopersicon esculentum	CAA06412.1	AJ005171	Lycopersicon esculentum
BAA85150.1	AB032830	Pisum sativum	CAA76727.1	Y17278	Lycopersicon esculentum
AAC12685.1	U76756	Pinus radiata	CAB67120.1	Y18932	Lycopersicon esculentum
BAB32662.1	AB055886	Atriplex lentiformis	CAA06413.1	AJ005172	Lycopersicon esculentum
BAA77239.1	AB025796	Populus alba	CAA07250.1	AJ006786	Lycopersicon esculentum
CAB59900.1	AJ010950	Capsicum annuum	BAB21149.1	AP002899	Oryza sativa
CAA65828.1	X97190	Capsicum annuum	CAB67119.1	Y18931	Lycopersicon esculentum
BAB39483.1	AB049200	Populus alba	CAA64566.1	X95270	Lycopersicon esculentum
AAA96135.1	L41046	Pisum sativum	CAA76724.1	Y17275	Lycopersicon esculentum
AAC62241.1	AF077339	Lycopersicon esculentum	CAA59964.1	X85975	Alnus glutinosa
CAA72133.1	Y11268	Lycopersicon esculentum	CAA76726.1	Y17277	Lycopersicon esculentum
CAA65600.1	X96856	Prunus persica	CAA06997.1	AJ006376	Lycopersicon esculentum
CAA65597.1	X96853	Prunus persica	CAA07001.1	AJ006380	Lycopersicon esculentum
BAB39482.1	AB049199	Populus alba	CAA07059.1	AJ006480	Lycopersicon esculentum
AAD08699.1	AF098292	Lycopersicon esculentum	CAA06998.1	AJ006377	Lycopersicon esculentum
CAA65826.1	X97188	Capsicum annuum	CAA07060.1	AJ006481	Lycopersicon esculentum
CAA60737.1	X87323	Capsicum annuum	CAA07062.1	AJ006483	Lycopersicon esculentum
AAC78504.1	U34754	Phaseolus vulgaris	BAB03290.1	AB037371	Oryza sativa
AAA02563.1	M57400	Phaseolus vulgaris	AAG38994.1	AF160513	Glycine max
CAB43938.1	AJ006349	Fragaria x ananassa	AAD02075.3	AF036960	Glycine max
BAA96207.1	AP002094	Oryza sativa	AAG09442.1	AF200467	Oryza sativa
AAA69908.1	U13054	Lycopersicon esculentum	AAF13299.1	AF181496	Lycopersicon esculentum
BAA96209.1	AP002094	Oryza sativa	BAA04839.1	D21815	Lilium longiflorum
CAA11301.1	AJ223386	Fragaria x ananassa	AAF31406.1	AF201883	Gossypioideis kirkii
AAC49704.1	U78526	Lycopersicon esculentum	CAA10987.1	AJ222782	Hordeum vulgare
BAA94257.1	AB040769	Hordeum vulgare	SEQ ID NO. 1066		
CAB51903.1	AJ242807	Brassica napus	BAA82556.1	AB030083	Populus nigra
AAA20082.1	U00730	Glycine max	AAD21872.1	AF078082	Phaseolus vulgaris
CAA11302.1	AJ223387	Fragaria x ananassa	AAF43408.1	AF230515	Oryza sativa subsp. japonica
BAA21111.1	D88417	Gossypium hirsutum	CAA73134.1	Y12531	Brassica oleracea
CAA80627.1	Z23081	Vigna radiata	AAB93834.1	U82481	Zea mays
			BAA92954.1	AP001551	Oryza sativa
SEQ ID NO. 1065			AAK21965.1	AY028699	Brassica napus

[illegible]

AAAF63205.1	AF245119	Mesembryanthemum crystallinum	CAB96874.1	AJ277164	Malus x domestica
BAA07321.1	D38123	Nicotiana tabacum	CAA0571.1	AJ002958	Cicer arietinum
BAB16083.1	AB036883	Oryza sativa	CAA65475.1	X96714	Prunus dulcis
BAB03248.1	AB037183	Oryza sativa	AAA33493.1	J04176	Zea mays
CAB96900.1	AJ251250	Catharanthus roseus	CAA65477.1	X96716	Prunus dulcis
CAB96699.1	AJ251249	Catharanthus roseus	AAB70538.1	AF017358	Oryza sativa
BAA99376.1	AF002526	Oryza sativa	AAF35184.1	AF195863	Gossypium hirsutum
AAC62619.1	AF057373	Nicotiana tabacum	AAK20395.1	AF334185	Triticum aestivum
AAG43548.1	AF211530	Nicotiana tabacum	AAA86694.1	U18127	Hordeum vulgare
AAG43549.1	AF211531	Nicotiana tabacum	AAG27707.1	AF302788	Triticum aestivum
AAK01089.1	AF298231	Hordeum vulgare	AAA75599.1	U15153	Gossypium hirsutum
SEQ ID NO. 1071			AAB34774.1	S78173	Gossypium hirsutum
AAA34181.1	M98466	Lycopersicon esculentum	CRA85484.1	Z37115	Hordeum vulgare
AAB39547.1	U63374	Lycopersicon esculentum	AAD46683.1	AF171094	Lilium longiflorum
AAB38497.1	U79772	Mercurialis annua	AAB96834.1	M64746	Daucus carota
SEQ ID NO. 1072			CAA63407.1	X92748	Beta vulgaris
AAA73945.1	L33904	Brassica oleracea	AAB70541.1	AF017361	Oryza sativa
AAC63372.1	AF093751	Brassica oleracea	AAA33494.1	M57249	Zea mays
AAA73947.1	L33906	Brassica oleracea	CAA91436.1	Z66529	Hordeum vulgare
AAA64310.1	U22174	Brassica napus	AAB70540.1	AF017360	Oryza sativa
AAB37228.1	U22105	Brassica napus	CAA69949.1	U08691	Oryza sativa
AAA73946.1	L33905	Brassica oleracea	AAB18815.1	U77295	Oryza sativa
AAA73948.1	L33907	Brassica oleracea	CAA48621.1	X68654	Hordeum vulgare
AAA32995.1	L29767	Brassica oleracea	SEQ ID NO. 1073		
AAF35185.1	AF195864	Gossypium hirsutum	AAD46406.1	AF096250	Lycopersicon esculentum
AAK28533.1	AF329829	Corylus avellana	AAD10057.1	AF110519	Lycopersicon esculentum
AAA74624.1	U31766	Oryza sativa	AAD10056.1	AF110518	Lycopersicon esculentum
AAB70539.1	AF017359	Oryza sativa	AAG31141.1	AF305911	Oryza sativa
AAG29777.1	AF228333	Gossypium hirsutum	AAG31142.1	AF305912	Hordeum vulgare
AAF35186.1	AF195865	Gossypium hirsutum	CAA06334.1	AJ005077	Lycopersicon esculentum
AAC00499.1	AF044204	Gossypium hirsutum	AAK30005.1	AY029067	Rosa hybrid cultivar
AAD09107.1	AF101038	Brassica napus	AAK34002.1	M67449	Glycine max
CAA50661.1	X71668	Sorghum bicolor	AAK11734.1	AY027437	Arachis hypogaea
AAF26449.1	AF221501	Prunus avium	CAC09580.1	AJ298992	Fagus sylvatica
AAAB06443.1	U66105	Zea mays	AAF76189.1	AF271206	Rosa hybrid cultivar
CAA80809.1	Z23271	Oryza sativa	AAF78015.1	AF238471	Oryza sativa
AAA34032.1	M58635	Spinacia oleracea	AAD43962.1	U78762	Triticum aestivum
AAF26450.1	AF221502	Malus x domestica	CAA61510.1	X89226	Oryza sativa
CAA50660.1	X71667	Sorghum bicolor	AAD46415.1	AF100765	Oryza sativa

AAG00510.1	AF285172	Phaseolus vulgaris	CAC10514.1	AJ299019	Samanea saman
BAB39437.1	AP003338	Oryza sativa	CAB54856.1	AJ132686	Zea mays
BAB39434.1	AP003338	Oryza sativa	CAA56175.1	X79779	Solanum tuberosum
AAF78020.1	AF238476	Oryza sativa	CAA71598.1	Y10579	Vicia faba
AAF78019.1	AF238475	Oryza sativa	SEQ ID NO. 1077		
AAF68399.1	AF237569	Oryza sativa	AAG31173.1	AF315714	Ipomoea nil
AAF68397.1	AF237567	Oryza sativa	AAC98912.1	AF029984	Lycopersicon esculentum
AAD44031.1	AF085166	Hordeum vulgare	CAB89693.1	AJ276591	Pisum sativum
BAA94516.1	AP001800	Oryza sativa	CAB94800.1	AJ289773	Pisum sativum
AAF66615.1	AF142596	Nicotiana tabacum	CAA70768.1	Y09579	Pisum sativum
AAF91323.1	AF244889	Glycine max	CAB94801.1	AJ289774	Pisum sativum
AAF91324.1	AF244890	Glycine max	BAA94422.1	AB040053	Oryza sativa subsp. japoni-
AAG25966.1	AF302082	Nicotiana tabacum	CAB89694.1	AJ276592	Pisum sativum
SEQ ID NO. 1075					
AAF40306.1	AF156667	Vigna radiata	SEQ ID NO. 1078		
CAA68193.1	X99937	Spinacia oleracea	AAD11481.1	U51191	Glycine max
BAA03763.1	D16247	Nicotiana sylvestris	AAD11482.1	U51192	Glycine max
AAF75791.1	AF271892	Pisum sativum	AAA65637.1	I13654	Lycopersicon esculentum
AAD20980.1	AF079782	Zea mays	AAA65636.1	I13653	Lycopersicon esculentum
BAA95704.1	AB042643	Oryza sativa	CRAA76374.2	Y16776	Spinacia oleracea
BAA95705.1	AB042644	Oryza sativa	BAA03644.1	D14997	Oryza sativa
AAG48833.1	AC084218	Oryza sativa	CAB80502.1	Z22920	Spirodela polyrrhiza
SEQ ID NO. 1076					
AAF33670.1	AF079872	Nicotiana tabacum	BAA07664.1	D42065	Nicotiana tabacum
AAF33669.1	AF079871	Nicotiana tabacum	AAF63024.1	AF244921	Spinacia oleracea
AAB53255.1	U65390	Nicotiana tabacum	BAA07663.1	D42064	Nicotiana tabacum
CAA65254.1	X96390	Lycopersicon esculentum	BAA77387.1	AB024437	Scutellaria baicalensis
BAA84085.1	AB032074	Nicotiana paniculata	CAC21393.1	AJ401276	Zea mays
AAF36832.1	AF207745	Triticum aestivum	AAD11483.1	U51193	Glycine max
CAB62555.1	AJ249962	Daucus carota	AAD11484.1	U51194	Glycine max
CAA68912.1	Y07632	Zea mays	CAA62226.1	X90693	Medicago sativa
CAC05488.1	AJ271446	Populus tremula x Populus	CAA62227.1	X90694	Medicago sativa
tremuloides			AAB41811.1	I36157	Medicago sativa
CAC05489.1	AJ271447	Populus tremula x Populus	CAA64413.1	X94943	Lycopersicon esculentum
tremuloides			BAA89584.1	AP001073	Oryza sativa
AAD39492.1	AF145272	Samanea saman	BAA90365.1	AP001081	Oryza sativa
BAA96150.1	AP002092	Oryza sativa	BAA01950.1	D11337	Vigna angularis
BAA96192.1	AP002093	Oryza sativa	AAB67737.1	I77080	Stylosanthes humilis
AAD16278.1	AF099095	Samanea saman	AAA32676.1	M37637	Arachis hypogaea
			AAF63027.1	AF244924	Spinacia oleracea
			CAA62225.1	X90692	Medicago sativa

CAC21391.1	AJ401274	Zea mays	AAF91322.1	AF244888	Glycine max
AAD37427.1	AF149277	Phaseolus vulgaris	AAK11568.1	AF318492	Lycopersicon hirsutum
CAB94692.1	AJ242742	Ipomoea batatas	AAB09771.1	U67422	Zea mays
AAB41810.1	I36156	Medicago sativa	AAF76307.1	AF220602	Lycopersicon pimpinellifol
BAA82307.1	AB027753	Nicotiana tabacum	AAF76314.1	AF220603	Lycopersicon esculentum
AAF65464.2	AF247700	Oryza sativa	AAB47424.1	U59317	Lycopersicon pimpinellifol
BAA92500.1	AF001383	Oryza sativa	BAA92954.1	AF001551	Oryza sativa
AAD37430.1	AF149280	Phaseolus vulgaris	AAB47422.1	U59318	Lycopersicon esculentum
CAA62615.1	X91232	Mécurialis annua	AAF91324.1	AF244890	Glycine max
AAC98519.1	AF007211	Glycine max			
AAB97734.1	AF014502	Glycine max	SEQ ID NO. 1080		
CRA39486.1	X56011	Triticum aestivum	AAB86850.1	AF031540	Fritillaria agrestis
BAA94962.1	AB042103	Asparagus officinalis	AAC84135.1	AF101422	Cichorium intybus
AAD37429.2	AF149279	Phaseolus vulgaris	BAA02159.1	D12634	Oryza sativa
AAF63026.1	AF244923	Spinacia oleracea	AAA63515.1	M63704	Oryza sativa
CAA71488.1	Y10462	Spinacia oleracea	AAB70265.1	AF017367	Oryza sativa
AAD37375.1	AF145349	Glycine max	AAA33084.1	M35173	Chlamydomonas reinhardtii
CAA76376.1	Y16778	Spinacia oleracea	CAB16954.1	Z99829	Chlamydomonas reinhardtii
BAA14143.1	D90115	Armoracia rusticana	CAA79708.1	Z21499	Stellaria longipes
CAA59485.1	X85228	Triticum aestivum			
			SEQ ID NO. 1081		
SEQ ID NO. 1079			BAA02159.1	D12634	Oryza sativa
AAG16628.1	AY007545	Brassica napus	AAA63515.1	M63704	Oryza sativa
AAK21965.1	AY028699	Brassica napus	AAB86850.1	AF031540	Fritillaria agrestis
AAG03090.1	AC073405	Oryza sativa	AAC84135.1	AF101422	Cichorium intybus
BAA94509.1	AB041503	Populus nigra	AAB70265.1	AF017367	Oryza sativa
BAA94510.1	AB041504	Populus nigra	AAA33084.1	M35173	Chlamydomonas reinhardtii
BAA78764.1	AB023482	Oryza sativa	CAB16954.1	Z99829	Chlamydomonas reinhardtii
AAC61805.1	U28007	Lycopersicon esculentum	CAA79708.1	Z21499	Stellaria longipes
AAE43496.1	AF131222	Lophopyrum elongatum			
AAK11674.1	AF339747	Lophopyrum elongatum	SEQ ID NO. 1082		
AAF91337.1	AF249318	Glycine max	BAB08188.1	AF002539	Oryza sativa
AAF91336.1	AF249317	Glycine max	CAA70815.1	Y09602	Hordeum vulgare
AAC27894.1	AF023164	Zea mays	CAB59202.1	X78878	Hordeum vulgare
AAF66615.1	AF142596	Nicotiana tabacum	CAA55478.1	X78877	Hordeum vulgare
CAB51834.1	00069	Oryza sativa	AAD22150.1	AF061282	Sorghum bicolor
AAD21872.1	AF078082	Phaseolus vulgaris	CAB58992.1	X78876	Hordeum vulgare
AAC27895.1	AF023165	Zea mays	AAD22151.1	AF061282	Sorghum bicolor
AAB61708.1	U93048	Daucus carota	AAF44708.1	AF242849	Lycopersicon esculentum
CAA97692.1	Z73295	Catharanthus roseus	AAD22164.1	AF061282	Sorghum bicolor
AAA33915.1	L27821	Oryza sativa	BAA04510.1	D17586	Oryza sativa

CAA70816.1	Y09603	Hordeum vulgare	CAC19933.1	AJ131739	Cuphea lanceolata
AAA32940.1	J03897	Hordeum vulgare	AAG43857.1	AF213476	Iris germanica
AAF64227.1	AF248647	Lycopersicon pennellii	AAG43858.1	AF213477	Iris germanica
AAD01265.1	AF006080	Solanum berthaultii	AAG43861.1	AF213480	Iris tectorum
AAD01263.1	AF006078	Solanum berthaultii	AAG43860.1	AF213479	Iris tectorum
AAD01264.1	AF006079	Solanum berthaultii	BAA83582.1	AP000399	Oryza sativa
AAD42963.2	AF141384	Matricaria chamomilla	CAB60830.1	AJ131740	Cuphea lanceolata
BAA04511.1	D17587	Oryza sativa	AAC49180.1	U38189	Cuphea palustris
BAA01757.1	D10985	Oryza sativa	AAC49784.1	U56104	Cuphea wrightii
CAA70817.1	Y09604	Hordeum vulgare	AAC49783.1	U56103	Cuphea wrightii
BAA94235.1	AP001633	Oryza sativa	CAC19934.1	AJ131741	Cuphea lanceolata
CAB71127.1	AJ271659	Cicer arietinum	AAC49179.1	U38188	Cuphea palustris
BAB19126.1	AP002839	Oryza sativa	AAC72881.1	AF062399	Cuphea hookeriana
AAA92062.1	U49382	Vigna radiata	AAC49269.1	U39834	Cuphea hookeriana
AAA92064.1	U49741	Vigna radiata	AAD42220.1	AF147879	Elaeis guineensis
CAA92216.1	Z68130	Pisum sativum	AAC49151.1	U31813	Cinnamomum camphora
			AAA34215.1	M94159	Umbellularia californica
			AAC49001.1	U17097	Umbellularia californica
			CAA06001.1	AJ003221	Solanum tuberosum
SEQ ID NO. 1083					
AAC49002.1	U17098	Brassica rapa	SEQ ID NO. 1084		
CAA52070.1	X73850	Brassica napus	BAB41080.1	AB052729	Pisum sativum
CAA52069.1	X73849	Brassica napus	AAA34085.1	M93436	Nicotiana tabacum
CAA6111.1	X87842	Brassica napus	AAA34054.1	M96432	Nicotiana tabacum
AAC72883.1	AF062401	Cuphea hookeriana			
AAA33020.1	M96569	Carthamus tinctorius	SEQ ID NO. 1085		
AAB51523.1	U92876	Garcinia mangostana	CAA06334.1	AJ005077	Lycopersicon esculentum
AAA33019.1	M96568	Carthamus tinctorius	AAG31141.1	AF305911	Oryza sativa
AAG35064.1	AF318288	Capsicum chinense	AAG31142.1	AF305912	Hordeum vulgare
AAG43859.1	AF213478	Iris germanica	AAK30005.1	AY029067	Rosa hybrid cultivar
AAB51524.1	U92877	Garcinia mangostana	AAD46406.1	AF096250	Lycopersicon esculentum
AAD28187.1	AF110462	Elaeis guineensis	AAD10057.1	AF110519	Lycopersicon esculentum
CAC14164.1	AJ278479	Brassica juncea	AAD10056.1	AF110518	Lycopersicon esculentum
AAC48990.1	U17076	Cuphea hookeriana	AAA34002.1	M67449	Glycine max
AAB71729.1	U65642	Myristica fragrans	AAK11734.1	AY027437	Arachis hypogaea
AAB51525.1	U92878	Garcinia mangostana	CAC09580.1	AJ298992	Fagus sylvatica
AAC72882.1	AF062400	Cuphea hookeriana	CAA97692.1	Z73295	Catharanthus roseus
AAB88824.1	AF036565	Helianthus annuus	AAF59906.1	AF197947	Glycine max
AAD33895.1	AF143095	Elaeis guineensis	AAF59905.1	AF197946	Glycine max
AAD33870.1	AF141382	Elaeis oleifera	CAA08995.1	AJ010091	Brassica napus
CAA54060.1	X76561	Cuphea lanceolata	CAB51834.1	00069	Oryza sativa
AAD01982.1	AF034266	Gossypium hirsutum			
AAF02215.1	AF076535	Gossypium hirsutum			

CAA08997.1	AJ010093	Brassica napus	AAB81662.1	U85246	Oryza sativa
AAF34436.1	AF172282	Oryza sativa	AAG13983.1	AF297522	Prunus avium
AAG25966.1	AF302082	Nicotiana tabacum	AAF32409.1	AF230276	Triphysaria versicolor
BAA06538.1	D31737	Nicotiana tabacum	AAG32921.1	AF184233	Lycopersicon esculentum
AAF76189.1	AF271206	Rosa hybrid cultivar	BAB32732.1	AB049406	Eustoma grandiflorum
BAA84787.1	AP000559	Oryza sativa	AAF32411.1	AF230278	Triphysaria versicolor
BAA83373.1	AP000391	Oryza sativa	AAF35902.1	AF230333	Zinnia elegans
AAF66615.1	AF142596	Nicotiana tabacum	AAB38074.1	U30477	Oryza sativa
AAF91322.1	AF244888	Glycine max	AAC96080.1	AF049353	Nicotiana tabacum
AAD21872.1	AF078082	Phaseolus vulgaris	AAF17570.1	AF202119	Marsilea quadrifolia
CAA61510.1	X89226	Oryza sativa	CAC06433.1	AJ276007	Festuca pratensis
AAF91323.1	AF244889	Glycine max	AAD13633.1	AF059489	Lycopersicon esculentum
AAF91324.1	AF244890	Glycine max	CAC19183.1	AJ291816	Cicer arietinum
AAF43394.1	AF230501	Oryza sativa subsp. japonica	AAF62181.1	AF247163	Oryza sativa
AAK16409.1	AF320086	Zea mays	AAF62180.1	AF247162	Oryza sativa
AAK21965.1	AY028699	Brassica napus	CAB46492.1	AJ243340	Lycopersicon esculentum
BAB39437.1	AP003338	Oryza sativa	BAA88200.1	AP000837	Oryza sativa
AAK11568.1	AF318492	Lycopersicon hirsutum	AAF32410.1	AF230277	Triphysaria versicolor
SEQ ID NO. 1086			AAB37749.1	U30460	Cucumis sativus
BAA85400.1	AP000615	Oryza sativa	CAA04385.1	AJ000885	Brassica napus
SEQ ID NO. 1088			AAF17571.1	AF202120	Regnellidium diphyllum
AAF35901.1	AF230332	Zinnia elegans	AAD13632.1	AF059488	Lycopersicon esculentum
CAC19184.1	AJ291817	Cicer arietinum	CAA06271.2	AJ004997	Lycopersicon esculentum
AAG13982.1	AF297521	Prunus avium	AAC63088.1	U82123	Lycopersicon esculentum
BAB19676.1	AB029083	Prunus persica	AAC96077.1	AF049350	Nicotiana tabacum
AAC33529.1	U93167	Prunus armeniaca	AAF62182.1	AF247164	Oryza sativa
AAC33530.1	AF038815	Prunus armeniaca	CAC18802.1	AJ289154	Glycine max
AAD47901.1	AF085330	Pinus taeda	AAC96078.1	AF049351	Nicotiana tabacum
AAB37746.1	U30382	Cucumis sativus	AAG01875.1	AF291659	Striga asiatica
AAF21101.1	AF159563	Fragaria x ananassa	CAA69105.1	Y07782	Oryza sativa
AAB40634.1	U64890	Pinus taeda	AAC96079.1	AF049352	Nicotiana tabacum
AAB40637.1	U64893	Pinus taeda	SEQ ID NO. 1089		
AAB40635.1	U64891	Pinus taeda	AAD02848.1	AF086839	Populus tremula x Populus
CAB43197.1	AJ239068	Lycopersicon esculentum	tremuloides		
AAB40636.1	U64892	Pinus taeda	CAB66329.1	AJ279687	Betula pendula
AAC64201.1	AF096776	Lycopersicon esculentum	BAA36555.1	AB011798	Citrus unshiu
AAD49956.1	AF167360	Rumex palustris	AAC77357.1	U79562	Pisum sativum
AAC96081.1	AF049354	Nicotiana tabacum	CAB61887.1	AJ250003	Lycopersicon esculentum
AAC39512.1	AF043284	Gossypium hirsutum	BAA36556.1	AB011799	Citrus unshiu
			AAB16804.1	U68560	Malus x domestica





AAD56411.1	AF185269	Tulipa gesneriana	BAB39155.1	AB048713	Pisum sativum
SEQ ID NO. 1107			AAG13663.1	AF263457	Zea mays
AAB69757.1	U75644	Lycopersicon esculentum	BAA90816.1	AP001168	Oryza sativa
AAC49666.1	U83708	Lycopersicon esculentum	AAC98090.1	AF067400	Zea mays
AAB38796.1	U73203	Nicotiana glutinosa	SEQ ID NO. 1114		
SEQ ID NO. 1109			CAA05249.1	AJ002204	Zea mays
BAA33531.1	D83583	Nicotiana tabacum	CAC03739.1	AJ251568	Zea mays
BAA33796.1	AB010717	Nicotiana tabacum	CAC04001.1	AJ251018	Zea mays
AAG59996.1	AY017473	Glycine max	CAC04002.1	AJ251019	Zea mays
BAA23641.1	D50679	Zea mays	SEQ ID NO. 1115		
AAC24584.1	AF071890	Prunus armeniaca	AAD22518.1	AF001136	Pinus radiata
CAA70137.1	Y08937	Chlamydomonas reinhardtii	SEQ ID NO. 1119		
AAA74456.1	U10419	Phaseolus vulgaris	CAA06925.1	AJ006228	Nicotiana tabacum
BAA09122.1	D50556	Oryza sativa	SEQ ID NO. 1122		
AAC17127.1	AF065616	Capsicum annuum	CAB61752.1	AJ275318	Cicer arietinum
AAA60450.1	M23456	Zea mays	CAC14890.1	AJ295156	Phragmites australis
CAC06095.1	AJ293240	Lotus japonicus	AAB68605.1	U82433	Prunus armeniaca
AAB50233.1	U90429	Glycine max	SEQ ID NO. 1124		
CAA46940.1	X66145	Nicotiana tabacum	AAD16018.1	AF081514	Taxus canadensis
CAA46942.1	X66147	Nicotiana tabacum	SEQ ID NO. 1125		
CRA34893.1	X17031	Spinacia oleracea	CAC34339.1	AJ308597	Solanum tuberosum
CAA42690.1	X60093	Betula pendula	AAF97863.1	AF175507	Eucalyptus camaldulensis
CAA46941.1	X66146	Nicotiana tabacum	CAA12225.1	AJ224926	Solanum tuberosum
AAC34042.1	AF082602	Leavenworthia crassa	AAD16279.1	AF099096	Samanea saman
AAC34043.1	AF082603	Leavenworthia uniflora	SEQ ID NO. 1127		
AAC34044.1	AF082604	Leavenworthia crassa	CAA67728.1	X99348	Vigna radiata
AAC34046.1	AF082606	Leavenworthia uniflora	SEQ ID NO. 1133		
AAC34045.1	AF082605	Leavenworthia stylota	AAC36700.1	AF075582	Mesembryanthemum crystallinum
AAC34047.1	AF082607	Leavenworthia stylota	AAG43835.1	AF213455	Zea mays
AAA96730.1	L23855	Glycine max	AAD17804.1	AF092431	Lotus japonicus
AAC34048.1	AF082608	Leavenworthia uniflora	AAC36698.1	AF075580	Mesembryanthemum crystallinum
SEQ ID NO. 1110			AAC36697.1	AF075579	Mesembryanthemum crystallinum
AAG14455.1	AF283707	Tulipa gesneriana	AAD17805.1	AF092432	Lotus japonicus
AAG14456.1	AF283708	Tulipa gesneriana			
AAG14454.1	AF283706	Tulipa gesneriana			
AAC08401.1	AF053564	Mesembryanthemum crystallinum			
SEQ ID NO. 1111					

CAA72341.1	Y11607	Medicago sativa	AAA33945.1	J03919	Glycine max
CAC10358.1	AJ277086	Nicotiana tabacum	AAA33944.1	J03920	Glycine max
CAC10359.1	AJ277087	Nicotiana tabacum	CAA48299.1	X68217	Pisum sativum
CAC09575.1	AJ298987	Fagus sylvatica	CAA48298.1	X68216	Pisum sativum
AAC26828.1	AF075603	Oryza sativa	AAD50278.1	AF169830	Glycine max
AAC36699.1	AF075581	Mesembryanthemum crystallinum	SEQ ID NO. 1164		
AAD11430.1	AF097667	Mesembryanthemum crystallinum	BAA31510.1	AB010878	Nicotiana tabacum
CAB90634.1	AJ277744	Fagus sylvatica	CAA63651.1	X93160	Spinacia oleracea
AAC35951.1	AF079355	Mesembryanthemum crystallinum	CAA75149.1	Y14932	Spinacia oleracea
AAB93832.1	U81960	Zea mays	SEQ ID NO. 1167		
CAC09576.1	AJ298988	Fagus sylvatica	BAA90815.1	AP001168	Oryza sativa
SEQ ID NO. 1141			BAA90804.1	AP001168	Oryza sativa
CAA55860.1	X79273	Solanum tuberosum	BAA90803.1	AP001168	Oryza sativa
SEQ ID NO. 1147			SEQ ID NO. 1168		
AAB59330.1	M31545	Hordeum vulgare	AAG25966.1	AF302082	Nicotiana tabacum
AAC48996.1	U20260	Glycine max	AAA33915.1	I27821	Oryza sativa
AAA81881.1	L39279	Lycopersicon esculentum	AAB61708.1	U93048	Daucus carota
CAA46787.1	X65974	Nicotiana tabacum	AAD21872.1	AF078082	Phaseolus vulgaris
CAA46786.1	X65973	Nicotiana tabacum	BAA06538.1	D31737	Nicotiana tabacum
AAA18861.1	U03632	Chlamydomonas reinhardtii	AAF66615.1	AF142596	Nicotiana tabacum
AAA18862.1	U03633	Chlamydomonas reinhardtii	AAB09771.1	U67422	Zea mays
SEQ ID NO. 1153			BAA94516.1	AP001800	Oryza sativa
BAB39155.1	AB048713	Pisum sativum	AAB93834.1	U82481	Zea mays
BAA90816.1	AP001168	Oryza sativa	BAA92954.1	AP001551	Oryza sativa
AAG13663.1	AF263457	Zea mays	CAB41878.1	Y18259	Brassica oleracea
AAC98090.1	AF067400	Zea mays	AAK21965.1	AY028699	Brassica napus
AAC98091.1	AF067401	Oryza sativa	BAA94517.1	AP001800	Oryza sativa
BAB39156.1	AB048714	Pisum sativum	CAA73134.1	Y12531	Brassica oleracea
SEQ ID NO. 1154			AAC23542.1	U20948	Ipomoea trifida
CAA42942.1	X60391	Phaseolus vulgaris	BAA78764.1	AB023482	Oryza sativa
CAA49895.1	X70441	Nicotiana alata	CAA67145.1	X98520	Brassica oleracea
AAA98492.1	L36982	Petroselinum crispum	CAB41879.1	Y18260	Brassica oleracea
SEQ ID NO. 1163			BAA94509.1	AB041503	Populus nigra
BAA95840.1	AP002070	Oryza sativa	CAA73133.1	Y12530	Brassica oleracea
CAA48297.1	X68215	Pisum sativum	BAA92836.1	AB032473	Brassica oleracea
CAA48300.1	X68218	Pisum sativum	SEQ ID NO. 1170		
			AAB88875.1	U93272	Prunus armeniaca

CAA83683.1	Z32850	Ricinus communis	AAC04387.1	AF009568	Gossypium hirsutum
AAA63452.1	M55191	Solanum tuberosum	AAF07174.1	AF192308	Vitis vinifera
AAC67586.1	AF095520	Citrus x paradisi	AAC06255.1	AF053080	Malus x domestica
AAA63451.1	M55190	Solanum tuberosum	AAA79993.1	U36439	Rubus hispidus
AAC67587.1	AF095521	Citrus x paradisi			
CAA83682.1	Z32849	Ricinus communis			
			SEQ ID NO. 1184		
SEQ ID NO. 1182			AAD21872.1	AF078082	Phaseolus vulgaris
CAC20842.1	AJ250467	Pinus sylvestris	AAC23542.1	U20948	Ipomoea trifida
AAF59906.1	AF197947	Glycine max	CAA73134.1	Y12531	Brassica oleracea
AAB36558.1	U77888	Ipomoea nil	AAB93834.1	U82481	Zea mays
AAF91324.1	AF244890	Glycine max	CAB89179.1	AJ245479	Brassica napus subsp. napu
AAF59905.1	AF197946	Glycine max	AAA33008.1	M97667	Brassica napus
AAF91323.1	AF244889	Glycine max	AAA33000.1	M76647	Brassica oleracea
AAF91322.1	AF244888	Glycine max	CAA67145.1	X98520	Brassica oleracea
AAF34426.1	AF172282	Oryza sativa	CAA73133.1	Y12530	Brassica oleracea
CAAG1510.1	X89226	Oryza sativa	BAA92836.1	AB032473	Brassica oleracea
AAC49123.1	U37133	Oryza sativa	CAB41878.1	Y18259	Brassica oleracea
AAC80225.1	U72723	Oryza sativa	BAA23676.1	AB000970	Brassica rapa
AAB82755.1	U72725	Oryza longistaminata	CAB41879.1	Y18260	Brassica oleracea
AAB82756.1	U72724	Oryza sativa	CAA79355.1	Z18921	Brassica oleracea
BAA88636.1	AB029327	Nicotiana tabacum	BAA06285.1	D30049	Brassica rapa
			BAA21132.1	D88193	Brassica rapa
			CAA74662.1	Y14286	Brassica oleracea
			AAA62232.1	U00443	Brassica napus
SEQ ID NO. 1183			BAA92837.1	AB032474	Brassica oleracea
BAA83103.1	D88820	Acetabularia mediterranea	CAA74661.1	Y14285	Brassica oleracea
CAA58701.1	X83730	Nicotiana tabacum	BAA07577.2	D38564	Brassica rapa
BAA23649.1	AB009077	Vigna radiata	BAA07576.1	D38563	Brassica rapa
CAA54869.1	X77915	Nicotiana tabacum	BAB21001.1	AB054061	Brassica rapa
BAA08232.1	D45383	Oryza sativa	AAD52097.1	AF088885	Nicotiana tabacum
AAA61609.1	I32791	Beta vulgaris	AAA33915.1	L27821	Oryza sativa
BAA33149.1	D86306	Cucurbita moschata	BAA92954.1	AP001551	Oryza sativa
BAA08233.1	D45384	Oryza sativa	AAK21965.1	AJ028699	Brassica napus
CAA58700.1	X83729	Nicotiana tabacum	CAB51836.1	AJ243961	Oryza sativa
AAF69010.1	AF257777	Vitis vinifera	AAG03090.1	AC073405	Oryza sativa
BAA02717.2	D13472	Hordeum vulgare	CAA79324.1	Z18884	Brassica oleracea
AAC49175.1	U31467	Vigna radiata			
BAA36841.1	AB018529	Chara corallina			
BAB18681.1	AB032839	Hordeum vulgare			
AAA61610.1	I32792	Beta vulgaris			
CAA58659.1	X83728	Nicotiana tabacum			
AAA80347.1	U36437	Zea mays			
			SEQ ID NO. 1186		
			CAA06999.1	AJ006378	Lycopersicon esculentum
			CAA07000.1	AJ006379	Lycopersicon esculentum
			CAA76727.1	Y17278	Lycopersicon esculentum

BAB21149.1	AP002899	Oryza sativa	CAA64635.1	X95342	Nicotiana tabacum
CAA76725.1	Y17276	Lycopersicon esculentum	AAC32274.1	AF081575	Petunia x hybrida
CAA71234.1	Y10149	Lycopersicon esculentum	CAA50155.1	X70824	Solanum melongena
CAA76724.1	Y17275	Lycopersicon esculentum	BAB40324.1	AB037245	Asparagus officinalis
CAA64566.1	X95270	Lycopersicon esculentum	BAB40323.1	AB037244	Asparagus officinalis
CAB67120.1	Y18932	Lycopersicon esculentum	CAA70576.1	Y09424	Nepeta racemosa
CAB67119.1	Y18931	Lycopersicon esculentum	AAA32913.1	M32885	Persea americana
CAA59864.1	X85975	Alnus glutinosa	CAA50645.1	X71654	Solanum melongena
CAA07001.1	AJ006380	Lycopersicon esculentum	CAA50312.1	X70981	Solanum melongena
CAA06376	AJ006376	Lycopersicon esculentum	CAA70575.1	Y09423	Nepeta racemosa
CAA76726.1	Y17277	Lycopersicon esculentum	CAA70576.1	Y09424	Nepeta racemosa
CAR06998.1	AJ006377	Lycopersicon esculentum	AAA32913.1	M32885	Persea americana
AAD02075.3	AF036960	Glycine max	CAA50645.1	X71654	Solanum melongena
AAG38994.1	AF160513	Glycine max	BAA03635.1	D14990	Solanum melongena
BAB03290.1	AB037371	Oryza sativa	CAA83941.1	Z33875	Mentha x piperita
AAG09442.1	AF200467	Oryza sativa	AAB94584.1	AF022157	Glycine max
AAF31406.1	AF201883	Gossypioides kirkii	AAF27282.1	AF122821	Capsicum annuum
CAB65690.1	AJ270956	Lycopersicon esculentum	AAB94588.1	AF022459	Glycine max
CAA10987.1	AJ222782	Hordeum vulgare	BAB40323.1	AB037244	Asparagus officinalis
			BAB40324.1	AB037245	Asparagus officinalis
			APA19701.1	L24438	Thlaspi arvense
SEQ ID NO. 1188			CAA50313.1	X70982	Solanum melongena
CAB43505.1	AJ239051	Cicer arietinum	AAD47832.1	AF165332	Nicotiana tabacum
BAA22422.1	AB001379	Glycyrrhiza echinata	CAB56503.1	AJ238612	Catharanthus roseus
BAA74465.1	AB022732	Glycyrrhiza echinata	CAA57421.1	X81827	Zea mays
BAA93634.1	AB025016	Lotus japonicus	AAB94589.1	AF022460	Glycine max
CAB41490.1	AJ238439	Cicer arietinum	CAA57422.1	X81828	Zea mays
CAA10067.1	AJ012581	Cicer arietinum	BAB40322.1	AB036772	Triticum aestivum
CAA04117.1	AJ000478	Helianthus tuberosus	CAA72196.1	Y11368	Zea mays
CAA04116.1	AJ000477	Helianthus tuberosus	CAA57425.1	X81831	Zea mays
AAA32913.1	M32885	Persea americana	AAD56282.1	AF155332	Petunia x hybrida
AAD56282.1	AF155332	Petunia x hybrida	AAC39318.1	AF029858	Sorghum bicolor
AAB94590.1	AF022461	Glycine max	CAA65580.1	X96784	Nicotiana tabacum
AAO9208.1	AF175278	Pisum sativum	AAG44132.1	AF218296	Pisum sativum
CAA65580.1	X96784	Nicotiana tabacum	BAA12159.1	D83968	Glycine max
AAAC49188.2	U29333	Pisum sativum	CAA64635.1	X95342	Nicotiana tabacum
CAB56742.1	AJ249800	Cicer arietinum	CAA72208.1	Y11404	Zea mays
BAA12159.1	D83968	Glycine max	CAA57423.1	X81829	Zea mays
AAC39454.1	AF014802	Eschscholzia californica	CAA72207.1	Y11403	Zea mays
AAG44132.1	AF218296	Pisum sativum	CAA57424.2	X81830	Zea mays
AAB17562.1	U72654	Eustoma grandiflorum	AAD44150.1	AF124815	Mentha spicata
BAA13076.1	D86351	Glycine max			

SEQ ID NO.	1190																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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AAA33129.1	M91372	Cucumis sativus	CAA69598.1	Y08273	Digitalis lanata
AAD37376.1	AF145350	Glycine max	AAA57045.1	I29469	Oryza sativa
CAA40796.1	X57564	Armoracia rusticana	AAA62706.1	M55018	Brassica napus
AAA34050.1	M74103	Nicotiana sylvestris	AAA57046.1	L29470	Oryza sativa
AAC49819.1	AF014468	Oryza sativa	AAA63543.1	M55019	Lycopersicon esculentum
CAA71493.1	Y10467	Spinacia oleracea	CAA59468.1	X85185	Catharanthus roseus
BAA77388.1	AB024438	Scutellaria baicalensis	AAC05639.1	AF052206	Chlamydomonas reinhardtii
CAA71494.1	Y10468	Spinacia oleracea	AAA57044.1	L29471	Oryza sativa
AAB67737.1	L77080	Stylosanthes humilis	AAD22975.1	AF126551	Solanum tuberosum subsp. tuberosum
CAA62597.1	X91172	Raphanus sativus	CAA52414.1	X74403	Phaseolus vulgaris
AAF63024.1	AF244921	Spinacia oleracea	CAA76054.1	Y16088	Lupinus luteus
AAA32973.1	M73234	Hordeum vulgare	AAF00471.1	AF178458	Lupinus luteus
CAA64413.1	X94943	Lycopersicon esculentum	AAA63403.1	M55021	Zea mays
AAA33121.1	M32742	Cucumis sativus	CAA48638.1	X86678	Zea mays
CAA62615.1	X91232	Mercurialis annua	AAA64430.1	L32095	Vicia faba
BAA03911.1	D16442	Oryza sativa	AAB51386.1	U92087	Solanum commersonii
AAC49821.1	AF014470	Oryza sativa	AAF65770.1	AF242312	Euphorbia esula
BAA11853.1	D83225	Populus nigra	ARG01536.1	AF291180	Capsicum annuum
CAB99487.1	AJ276227	Hordeum vulgare	CAA10766.1	AJ132763	Pseudotsuga menziesii
AAB97853.1	AF043234	Striga asiatica	CAA65889.1	X97255	Digitalis lanata
AAA34108.1	J02979	Nicotiana tabacum	CAA78459.1	Z14081	Nicotiana tabacum
AAA65637.1	L13654	Lycopersicon esculentum	SEQ ID NO. 1200		
CAA59487.1	X85230	Triticum aestivum	CAA50575.1	X71441	Nicotiana tabacum
SEQ ID NO. 1195			CAA56318.1	X80008	Nicotiana tabacum
AAD39534.2	AF150630	Gossypium hirsutum	CAA53366.1	X75670	Oryza sativa
AAC39333.1	AF030052	Oryza sativa subsp. japonica	CAA04702.1	AJ001369	Olea europaea
SEQ ID NO. 1196			AAC49701.1	U79011	Borago officinalis
CAA98168.1	Z73940	Lotus japonicus	AAA62621.1	L22209	Cuscuta reflexa
AAA34004.1	L14930	Glycine max	CAA04703.1	AJ001370	Olea europaea
AAA34242.1	L14928	Vigna aconitifolia	AAA32990.1	M87514	Brassica oleracea
CAA98169.1	Z73941	Lotus japonicus	CAA48240.1	X68140	Nicotiana tabacum
AAB71504.1	U82219	Prunus armeniaca	AAD10774.1	AF098510	Petunia x hybrida
CAA98170.1	Z73942	Lotus japonicus	AAF60299.1	AF233640	Petunia x hybrida
CAA98171.1	Z73943	Lotus japonicus	SEQ ID NO. 1201		
CAA46600.1	X65650	Pisum sativum	BAA08910.1	D50407	Cucumis sativus
AAB47557.1	U87142	Mesembryanthemum crystallinum	AAD16897.1	AF105221	Glycine max
BAA02904.1	D13758	Oryza sativa	BAA25168.1	D88383	Hordeum vulgare
SEQ ID NO. 1198			BAA25003.1	AB011416	Oryza sativa

CAA60054.1	X86101	Hordeum vulgare	AAF04972.1	AF091458	Oryza sativa
CAA63140.1	X92403	Hordeum vulgare	BAA33457.1	AB007504	Triticum aestivum
BAA25167.1	D88382	Hordeum vulgare	AAB50187.1	U49734	Sorghum bicolor
BAA11091.1	D67088	Cucumis sativus	AAC49817.1	U78892	Oryza sativa
CAA60055.1	X86102	Hordeum vulgare	AAF19048.1	AF058698	Oryza sativa
AAG41962.1	AF305613	Chlamydomonas reinhardtii	AAC83170.1	U78948	Malus x domestica
AAG02480.1	AF294753	Hordeum vulgare	SEQ ID NO. 1203		
AAG02479.1	AF294752	Hordeum vulgare	AAG28780.1	AF306518	Brassica napus
SEQ ID NO. 1202			CAC10555.1	AJ279059	Lotus japonicus
AAG09811.1	AF275345	Lycopersicon esculentum	CAA64475.1	X95098	Lycopersicon esculentum
AAK27150.1	AF345246	Ipomoea batatas	AAG11397.1	AF118858	Lycopersicon esculentum
AAF22455.1	AF060880	Paulownia kawakamii	AAD16012.1	AF080541	Nepenthes alata
AAK27151.1	AF346303	Ipomoea batatas	AAF01774.1	AF188744	Brassica napus
AAB94005.1	AF008651	Solanum tuberosum	SEQ ID NO. 1205		
AAK21250.1	AF335237	Petunia x hybrida	AAG28600.1	AF247134	Limnanthes douglasii
BAA81880.1	AB003322	Oryza sativa	AAC49186.1	U37088	Simmondsia chinensis
CAB97349.1	AJ249141	Hordeum vulgare	AAB72178.1	AF009563	Brassica napus
CAC29335.1	AJ293816	Oryza sativa	AA96054.1	U50771	Brassica napus
AAF66690.1	AF144623	Canavalia lineata	AAK11266.1	AF333040	Dunaliella salina
AAB94006.1	AF008652	Solanum tuberosum	CAC17746.1	AF291728	Zea mays
AAK21256.1	AF335243	Petunia x hybrida	AAC25109.1	AF054497	Brassica napus
AAC84133.1	AF101420	Cichorium intybus	AAC25110.1	AF054498	Brassica napus
AAG09919.1	AF112149	Zea mays	AAC25111.1	AF054499	Brassica rapa
BAA25246.1	D89671	Ceratopteris richardii	AAC25112.1	AF054500	Brassica oleracea
AAG09136.1	AF150932	Physcomitrella patens	SEQ ID NO. 1206		
AAG09135.1	AF150931	Physcomitrella patens	AAF06346.1	AF195653	Vitis vinifera
AAF77579.1	AF072534	Capsicum annuum	BAA28872.1	AB006009	Pyrus pyrifolia
AAK21257.1	AF335244	Petunia x hybrida	CAC10270.1	AJ243427	Malus x domestica
AAB71434.1	U78890	Oryza sativa	AAC36740.1	AF090143	Malus x domestica
BAA81865.1	AB026295	Oryza sativa	BAA74546.2	AB000834	Nicotiana tabacum
CAB56800.1	AJ011675	Oryza sativa	CAB62167.1	AJ242828	Castanea sativa
AAF18376.1	AF158543	Picea abies	AAF06347.1	AF195654	Vitis vinifera
AAD10625.1	AF033578	Lolium temulentum	CAC09477.1	AL442113	Oryza sativa
CAB97354.1	AJ249146	Hordeum vulgare	AAB38064.1	U32440	Prunus avium
AAK21252.1	AF335239	Petunia x hybrida	AAB95118.1	U71244	Brassica rapa
BAA81883.1	AB003325	Oryza sativa	CAA10492.1	AJ131731	Pseudotsuga menziesii
AAB51377.1	U91964	Medicago sativa	BAA95017.1	AB031870	Cestrum elegans
CAA67968.1	X99654	Betula pendula	AAB02259.1	U57787	Avena sativa
AAD10626.1	AF035379	Lolium temulentum			
CAA53782.1	X76188	Nicotiana tabacum			

AAD55090.1	AF178653	Vitis riparia	AAAF43496.1	AF131222	Lophopyrum elongatum
BRA95165.1	AB029918	Nicotiana tabacum	BAA78764.1	AB023482	Oryza sativa
AAB61590.1	AF003007	Vitis vinifera	AAB09771.1	U67422	Zea mays
AAF82264.1	AF227324	Vitis vinifera	AAF66615.1	AF142596	Nicotiana tabacum
AAB53368.1	U77657	Oryza sativa	AAG03090.1	AC073405	Oryza sativa
CAA09228.1	AJ010501	Cicer arietinum	CAB51834.1	00069	Oryza sativa
CAA33293.1	X15224	Nicotiana tabacum	AAG25966.1	AF302082	Nicotiana tabacum
CAA33292.1	X15223	Nicotiana tabacum	CAA97692.1	Z73295	Catharanthus roseus
SEQ ID NO. 1208			AAF91324.1	AF244890	Glycine max
AAC36698.1	AF075580	Mesembryanthemum crystallinum	AAF91323.1	AF244889	Glycine max
AAG43835.1	AF213455	Zea mays	BAA82556.1	AB030083	Populus nigra
CAA72341.1	Y11607	Medicago sativa	BAA94516.1	AP001800	Oryza sativa
CAC10358.1	AJ277086	Nicotiana tabacum	AAF59906.1	AF197947	Glycine max
AAD17804.1	AF092431	Lotus japonicus	AAF59905.1	AF197946	Glycine max
AAD17805.1	AF092432	Lotus japonicus	SEQ ID NO. 1211		
AAC36697.1	AF075579	Mesembryanthemum crystallinum	AAC09420.1	M68929	Mitochondrion Marchantia
CAC10359.1	AJ277087	Nicotiana tabacum	polymorpha		
CAB90633.1	AJ277743	Fagus sylvatica	CAA33994.1	X15901	Plastid Oryza sativa
AAC36700.1	AF075582	Mesembryanthemum crystallinum	SEQ ID NO. 1212		
CAC09575.1	AJ298987	Fagus sylvatica	CAA43941.1	X61937	Brassica napus
CAB90634.1	AJ277744	Fagus sylvatica	CAA41064.1	X58000	Brassica napus
AAC26828.1	AF075603	Oryza sativa	AAB22218.2	S37032	Brassica napus
AAB93832.1	U81960	Zea mays	CAA45313.1	X63779	Brassica napus
AAC35951.1	AF079355	Mesembryanthemum crystallinum	CAA55008.1	X78118	Prunus dulcis
AAD11430.1	AF097667	Mesembryanthemum crystallinum	CAA88360.1	Z48450	Citrus sinensis
AAC36699.1	AF075581	Mesembryanthemum crystallinum	AAD42942.1	AF091840	Sesamum indicum
CAC09576.1	AJ298988	Fagus sylvatica	AAB67992.1	U72411	Bromus secalinus
SEQ ID NO. 1210			AAA68065.1	U13701	Zea mays
AAC27894.1	AF023164	Zea mays	AAC02239.1	U43930	Oryza sativa
AAC27895.1	AF023165	Zea mays	CAA57995.1	X82678	Hordeum vulgare
AAK21965.1	AY028699	Brassica napus	AAC33281.1	AF022148	Oryza sativa
AAC61805.1	U28007	Lycopersicon esculentum	AAD41080.1	AF147758	Elaeis guineensis
AAF91336.1	AF249317	Glycine max	AAG43516.1	AF210696	Perilla frutescens
AAF91337.1	AF249318	Glycine max	AAB58402.1	U97700	Sesamum indicum
BAA82394.1	AF000367	Oryza sativa	AAG43517.1	AF210697	Perilla frutescens
AAG16628.1	AY007545	Brassica napus	AAG09751.1	AF237625	Perilla frutescens
BRA94510.1	AB041504	Populus nigra	AAA17854.1	U09118	Glycine max
BAA94509.1	AB041503	Populus nigra	AAG24455.1	AF311746	Perilla frutescens
AAK11674.1	AF339747	Lophopyrum elongatum	AAA17855.1	U09119	Glycine max



CRA43183.1	X60773	Glycine max	AAB41524.1	M91079	Medicago sativa
AAK13449.1	AF325917	Arachis hypogaea	CAA34490.1	X16470	Phaseolus vulgaris
AAG23840.1	AF302807	Sesamum indicum	AAB41480.1	M91080	Medicago sativa
CAA44224.1	X62352	Helianthus annuus	CAA06202.1	AJ004902	Glycine max
AAK13450.1	AF325918	Arachis hypogaea	AAA50174.1	U03433	Pisum sativum
CAA57994.1	X82677	Hordeum vulgare	BAA76416.1	AB024988	Cicer arietinum
AAG01171.1	AF288622	Fagopyrum esculentum	AAG32050.1	AF307301	Lotus corniculatus
CAA57544.1	X82019	Brassica napus	AAG30542.1	AF308141	Lotus corniculatus
CRA43182.1	X60772	Glycine max	AAG30541.1	AF308140	Lotus corniculatus
AAA57545.1	X82020	Brassica napus	SEQ ID NO. 1215		
AAA67699.1	J05212	Zea mays	AAF06347.1	AF195654	Vitis vinifera
AB01098.1	U47099	Daucus carota	AAF06346.1	AF195653	Vitis vinifera
AAD10240.1	AF019212	Oryza sativa subsp. indica	BAA28872.1	AB006009	Pyrus pyrifolia
AAC02240.1	U43931	Oryza sativa	BAA74546.2	AB000834	Nicotiana tabacum
CAA55348.1	X78679	Helianthus annuus	CAC10270.1	AJ243427	Malus x domestica
AAA68066.1	U13702	Zea mays	AAC36740.1	AF090143	Malus x domestica
CAA64801.1	X95555	Brassica napus	CAC09477.1	AL442113	Oryza sativa
AAD24547.1	AF117126	Brassica oleracea	AAB38064.1	U32440	Prunus avium
CAA64800.1	X95554	Brassica napus	AAB95118.1	U71244	Brassica rapa
CAA64805.1	X95559	Brassica napus	CAB62167.1	AJ242828	Castanea sativa
CAA70173.1	Y08986	Brassica napus	BAA95017.1	AB031870	Cestrum elegans
SEQ ID NO. 1213			CAA10492.1	AJ131731	Pseudotsuga menziesii
CAB94968.1	AJ287322	Arabidopsis lyrata	BAA95165.1	AB029918	Nicotiana tabacum
AB87071.1	AF031921	Raphanus sativus	AAB02259.1	U57787	Avena sativa
CAA53577.1	X75963	Vitis vinifera	AAB53368.1	U77657	Oryza sativa
BAB36552.1	AB011794	Citrus sinensis	AAD55090.1	AF178653	Vitis riparia
AAC16013.1	AF061808	Elaeagnus umbellata	CAA09228.1	AJ010501	Cicer arietinum
CAA32729.1	X14589	Petunia x hybrida	CAA33293.1	X15224	Nicotiana tabacum
CAA68769.1	Y00852	Petunia x hybrida	CAA33292.1	X15223	Nicotiana tabacum
CAA91921.1	Z67980	Callistephus chinensis	AAB61590.1	AF003007	Vitis vinifera
AAF60296.1	AF233637	Petunia x hybrida	AAF82264.1	AF227324	Vitis vinifera
AA91931.1	Z67989	Dianthus caryophyllus	AAA93095.1	J01209	Thaumatooccus daniellii
AB86474.1	AF028238	Ipomoea purpurea	SEQ ID NO. 1216		
CAA32730.1	X14590	Petunia x hybrida	BAB41137.1	AB060130	Zea mays
BAA90334.1	AB037396	Ipomoea batatas	BAB20581.1	AB042268	Zea mays
CAA80441.1	Z22760	Zea mays	BAB17300.1	AB042260	Zea mays
CAA48774.1	X68978	Malus sp.	BAB20580.1	AB042267	Zea mays
CAA48775.1	X68979	Malus sp.	BAB20582.1	AB042269	Zea mays
BAA09795.1	D63577	Pueraria montana var. lobata	BAB2873.1	AB024291	Zea mays
CAA78763.1	Z15046	Phaseolus vulgaris			

BAB20579.1	AB042261	Zea mays	AAB61708.1	U93048	Daucus carota
BAA85113.1	AB031012	Zea mays	AAF66615.1	AF142596	Nicotiana tabacum
AAK14395.1	AF339732	Dianthus caryophyllus	AAB82756.1	U72724	Oryza sativa
BAA85112.1	AB031011	Zea mays	AAK21965.1	AY028699	Brassica napus
BAA75253.1	AB004882	Zea mays	AAC27894.1	AF023164	Zea mays
AAD55941.1	AF174532	Chlamydomonas reinhardtii	SEQ ID NO. 1222		
AAD55945.1	AF174480	Chlamydomonas reinhardtii	CRA03982.1	AJ000265	Spinacia oleracea
AAF32350.1	AF219972	Mesembryanthemum crystallinum	BAB17656.1	AB044969	Arabidopsis lyrata subsp. petraea
SEQ ID NO. 1219			BAB17655.1	AB044968	Arabis gemmifera
BAA78738.1	AB023482	Oryza sativa	BAA08148.1	D45217	Oryza sativa
CAB96899.1	AJ251249	Catharanthus roseus	BAA08149.1	D45218	Oryza sativa
CAB96900.1	AJ251250	Catharanthus roseus	AAC08411.1	AF054455	Leavenworthia crassa
AAF76898.1	AF274033	Atriplex hortensis	CAA03983.1	AJ000266	Spinacia oleracea
CAC12822.1	AJ299252	Nicotiana tabacum	BAA23184.1	D88929	Dioscorea tokoro
AAC24587.1	AF071893	Prunus armeniaca	BAA23183.1	D88928	Dioscorea tokoro
BAB03248.1	AB037183	Oryza sativa	BAA23181.1	D88926	Dioscorea tokoro
BAB16083.1	AB036883	Oryza sativa	BAA23179.1	D88924	Dioscorea tokoro
AAG43545.1	AF211527	Nicotiana tabacum	BAA23178.1	D88923	Dioscorea tokoro
AAG43548.1	AF211530	Nicotiana tabacum	BAA23177.1	D88922	Dioscorea tokoro
AAG43549.1	AF211531	Nicotiana tabacum	BAA23176.1	D88921	Dioscorea tokoro
AAF23899.1	AF193803	Oryza sativa	BAA23182.1	D88927	Dioscorea tokoro
AAF63205.1	AF245119	Mesembryanthemum crystallinum	BAA23185.1	D88930	Dioscorea tokoro
BAA07321.1	D38123	Nicotiana tabacum	BAA23180.1	D88925	Dioscorea tokoro
AAC62619.1	AF057373	Nicotiana tabacum	CAA61575.1	X89395	Clarkia arcuata
BAA99376.1	AF002526	Oryza sativa	AAA82734.1	U17225	Zea mays
AAK01089.1	AF298231	Hordeum vulgare	CAA61564.1	X89384	Clarkia lewisii
SEQ ID NO. 1220			CAA50402.1	X71084	Clarkia lewisii
CAC20842.1	AJ250467	Pinus sylvestris	CAA61566.1	X89386	Clarkia xantiana
AAB36558.1	U77888	Ipomoea nil	CAA56693.1	X80666	Clarkia xantiana
AAF91324.1	AF244890	Glycine max	CAA61574.1	X89394	Clarkia williamsonii
AAF91322.1	AF244888	Glycine max	CAA61569.1	X89389	Clarkia mildrediae
AAC36318.1	AF053127	Malus x domestica	CAB55566.1	Y14129	Clarkia gracilis
BAA84787.1	AP000559	Oryza sativa	CAA61576.1	X89396	Clarkia franciscana
BAA83373.1	AP000391	Oryza sativa	CAA61567.1	X89387	Clarkia xantiana
AAF59905.1	AF197946	Glycine max	CAA56694.1	X80667	Clarkia xantiana
AAF91323.1	AF244889	Glycine max	CAA61570.1	X89390	Clarkia concinna
AAF34426.1	AF172282	Oryza sativa	CAA61572.1	X89392	Clarkia rostrata
CAA61510.1	X89226	Oryza sativa	CAA61577.1	X89397	Oenothera mexicana
AAB82755.1	U72725	Oryza longistaminata	CAB55567.1	Y14130	Clarkia gracilis

CAA61565.1	X89385	Clarkia lewisii	AAC32140.1	AF051239	Picea mariana
CAA45616.1	X64332	Clarkia lewisii	AAA34308.1	M55604	Triticum aestivum
CAA61571.1	X89391	Clarkia concinna	AAA34265.1	M90663	Triticum aestivum
BAA23205.1	AB006088	Dioscorea quinqueloba	AAA34266.1	M90664	Triticum aestivum
BAA22035.1	AB006617	Dioscorea nipponica	CAA71762.1	Y10804	Nicotiana tabacum
BAA22037.1	AB006619	Dioscorea septemloba			
BAA22038.1	AB006620	Dioscorea tenuipes	SEQ ID NO. 1229		
BAA23175.1	D89920	Dioscorea tenuipes	CAA55693.1	X79086	Zea mays
BAA22033.1	AB006615	Dioscorea gracillima	CAA55691.1	X79085	Zea mays
BAA22036.1	AB006618	Dioscorea quinqueloba	AAF97508.1	AF2422298	Oryza sativa
BAA22034.1	AB006616	Dioscorea gracillima			
CAA50403.1	X71085	Clarkia lewisii	SEQ ID NO. 1234		
AAK07826.1	AF293478	Leavenworthia stylosa	AAA50763.1	U15605	Nicotiana glutinosa
AAK07825.1	AF293477	Leavenworthia stylosa	CAA08798.1	AJ009720	Solanum tuberosum
AAK07822.1	AF293474	Leavenworthia stylosa	AAG09951.1	AF175388	Glycine max
AAK07821.1	AF293473	Leavenworthia stylosa	AAG43546.1	AF211528	Nicotiana tabacum
AAK07820.1	AF293472	Leavenworthia stylosa	CAC35326.1	AJ310151	Linum usitatissimum
			CAC35339.1	AJ310164	Linum usitatissimum
SEQ ID NO. 1224			CAC35321.1	AJ310150	Linum usitatissimum
BAB03347.1	AF002817	Oryza sativa	CAC35329.1	AJ310154	Linum usitatissimum
BAA92400.1	AF001366	Oryza sativa	CAC35338.1	AJ310163	Linum usitatissimum
CAA63102.2	X92205	Petunia x hybrida	CAA08797.1	AJ009719	Solanum tuberosum
CAA63101.1	X92204	Petunia x hybrida	CAC35330.1	AJ310155	Linum usitatissimum
BAA84803.1	AF000559	Oryza sativa	CAC35337.1	AJ310162	Linum usitatissimum
			CAC35334.1	AJ310159	Linum usitatissimum
SEQ ID NO. 1226			AAK28810.1	AF310964	Linum usitatissimum
AAD43046.1	AF124045	Sorghum bicolor	AAK28806.1	AF310960	Linum usitatissimum
			CAC35333.1	AJ310158	Linum usitatissimum
SEQ ID NO. 1227			CAC35325.1	AJ310150	Linum usitatissimum
AAC49832.1	AF005492	Oryza sativa	CAC35328.1	AJ310153	Linum usitatissimum
AAC04862.1	AF046934	Paulownia kawakamii	CAC35336.1	AJ310161	Linum usitatissimum
BAA97100.1	AB040471	Nicotiana tabacum	AAK28803.1	AF310958	Linum usitatissimum
CAA05898.1	AJ003142	Lycopersicon esculentum	CAC35327.1	AJ310152	Linum usitatissimum
CAA52015.1	X73635	Lycopersicon esculentum	CAC35332.1	AJ310157	Linum usitatissimum
BAA96162.1	AP002092	Oryza sativa	AAK28811.1	AF310966	Linum usitatissimum
CAA71687.1	Y10685	Glycine max	AAK28812.1	AF310968	Linum usitatissimum
CAA41453.1	X58577	Petroselinum crispum	CAC35331.1	AF310156	Linum usitatissimum
CAA70216.1	Y09013	Triticum aestivum	CAC35323.1	AJ310150	Linum usitatissimum
			AAK28805.1	AF310960	Linum usitatissimum
SEQ ID NO. 1228			AAK28808.1	AF310961	Linum usitatissimum
CAA09619.1	AJ011418	Lycopersicon esculentum	AAB47618.1	U73916	Linum usitatissimum

AAK28809.1	AF310962	Linum usitatissimum	SEQ ID NO. 1247	BAA21921.1	AB006599	Petunia x hybrida
AAD25965.1	AF093638	Linum usitatissimum		BAA21922.1	AB006600	Petunia x hybrida
AAD25969.1	AF093642	Linum usitatissimum		BAA19110.1	AB000451	Petunia x hybrida
AAD25968.1	AF093641	Linum usitatissimum		BAA21923.1	AB006601	Petunia x hybrida
AAA91022.1	U27081	Linum usitatissimum		BAA21925.1	AB006603	Petunia x hybrida
AAD25972.1	AF093645	Linum usitatissimum		BAA21924.1	AB006602	Petunia x hybrida
AAD25971.1	AF093644	Linum usitatissimum		BAA21920.1	AB006598	Petunia x hybrida
AAD25973.1	AF093646	Linum usitatissimum		BAA19111.1	AB000452	Petunia x hybrida
AAD25967.1	AF093640	Linum usitatissimum		BAA21926.1	AB006604	Petunia x hybrida
AAD25970.1	AF093643	Linum usitatissimum		BAA21927.1	AB006605	Petunia x hybrida
AAD25974.1	AF093647	Linum usitatissimum		BAA96071.1	AB035133	Petunia x hybrida
AAD25976.1	AF093649	Linum usitatissimum		BAA21919.1	AB006597	Petunia x hybrida
AAD25975.1	AF093648	Linum usitatissimum		BAA96070.1	AB035132	Petunia x hybrida
AAA91021.1	U27081	Linum usitatissimum		AAB53260.1	U76554	Brassica rapa
AAD25966.1	AF093639	Linum usitatissimum		AAB53261.1	U76555	Brassica rapa
AAG09952.1	AF175389	Glycine max		BAA19114.1	AB000455	Petunia x hybrida
AAG01052.1	AF175395	Glycine max		BAA05078.1	D26085	Petunia x hybrida
AAG01051.1	AF175394	Glycine max		AAD26942.1	AF119050	Datisca glomerata
AAG09954.1	AF175399	Glycine max		BAA05077.1	D26084	Petunia x hybrida
SEQ ID NO. 1237				AAC06243.1	AF053077	Nicotiana tabacum
AAF27919.1	AF220203	Malus x domestica		BAA19112.1	AB000453	Petunia x hybrida
AAK19614.1	AF336281	Gossypium hirsutum		AAK01713.1	AF332876	Oryza sativa
SEQ ID NO. 1238				BAA05076.1	D26083	Petunia x hybrida
AAG17476.1	AF106844	Oryza sativa		BAA05079.1	D26086	Petunia x hybrida
AAC32134.1	AF051233	Picea mariana		BAA21928.1	AB006606	Petunia x hybrida
SEQ ID NO. 1239				BAA19926.1	AB000456	Petunia x hybrida
BAB11940.1	AB038492	Atriplex gmelini		BAA19113.1	AB000454	Petunia x hybrida
BAA83337.1	AB021878	Oryza sativa		SEQ ID NO. 1250		Oryza sativa
BAB16381.1	AB033990	Ipomoea nil		BAA82375.1	AP000367	Oryza sativa
BAB16380.1	AB033989	Ipomoea nil		SEQ ID NO. 1253		Oryza sativa
AAK27314.1	AY028416	Citrus x paradisi		BAA04864.1	D21836	Oryza sativa
AAK28483.1	AF307944	Zea mays		BAA05546.1	D26547	Oryza sativa
SEQ ID NO. 1245				AAB51522.1	U92541	Oryza sativa
AAF21982.1	AF115543	Populus tremula x Populus		AAG35777.1	AF273844	Brassica oleracea var.
tremuloides				alboglaba		
CAB65535.1	AJ011794	Zea mays		BAA25681.1	AB010434	Brassica rapa
				AAB53694.1	U59379	Brassica napus
				AAF88067.1	AF286593	Triticum aestivum

AAC32111.1	AF051206	Picea mariana	AAC37345.1	I20621	Zea mays
BAB20886.1	AB053294	Oryza sativa	AAC35341.1	AF072448	Ipomoea trifida
CAR55399.1	X78822	Chlamydomonas reinhardtii	AAC35343.1	AF072450	Ipomoea trifida
CAA94534.1	Z70677	Ricinus communis	AAB57737.1	U89270	Tripsacum dactyloides
CAR56850.1	X80887	Chlamydomonas reinhardtii	AAF89645.1	AF169018	Glycine max
CAA05081.1	AJ001903	Triticum turgidum subsp. durum	AAF04253.1	AF097651	Pisum sativum
AAC49358.1	U35831	Pisum sativum	AAF04193.1	AF053638	Pisum sativum
CAR53900.1	X76269	Pisum sativum	AAB57738.1	U89271	Tripsacum dactyloides
BAA13524.1	D87984	Fagopyrum esculentum	AAF04194.1	AF053639	Pisum sativum
CRA41415.1	X58527	Nicotiana tabacum	AAB00109.1	U21801	Lycopersicon esculentum
AAD49233.1	AF159388	Phalaris coarulescens	SEQ ID NO. 1259		
BAB39913.1	AP002912	Oryza sativa	AAC78466.1	AF053311	Zantedeschia aethiopica
AAD49230.1	AF159385	Hordeum bulbosum	CRA04142.1	AJ000508	Pisum sativum
AAD49234.1	AF159389	Phalaris coarulescens	CAB59895.1	AJ238745	Hordeum vulgare
AAD49232.1	AF159387	Lolium perenne	CAB59893.1	AJ238697	Hordeum vulgare
CRA35826.1	X51462	Spinacia oleracea	CAB96145.1	AJ250951	Mesembryanthemum crystallinum
CRA35827.1	X51463	Spinacia oleracea	BAA22194.1	D63425	Spinacia oleracea
CAA77847.1	Z11803	Nicotiana tabacum	CRA42780.1	X60219	Nicotiana sylvestris
AAD56954.1	AF186240	Secale cereale	BAB16430.1	AB041518	Nicotiana tabacum
AAD49231.1	AF159386	Secale cereale	CAA75009.1	Y14707	Helianthus annuus
AAD33596.1	AF133127	Hevea brasiliensis	CAA75054.1	Y14762	Lycopersicon esculentum
CAA55398.1	X78821	Chlamydomonas reinhardtii	AAB94892.1	AF037051	Gossypium hirsutum
CAA56851.1	X80888	Chlamydomonas reinhardtii	CAB59894.1	AJ238744	Hordeum vulgare
CAA44209.1	X62335	Chlamydomonas reinhardtii	CAA74775.1	Y14429	Helianthus annuus
CAA06736.1	AJ005841	Oryza sativa	AAB66330.1	AF014927	Chlamydomonas reinhardtii
CAA06735.1	AJ005840	Triticum aestivum	BAA83594.1	AB009083	Chlamydomonas sp. W80
AAB53695.1	U59380	Brassica napus	CAA75055.1	Y14763	Lycopersicon esculentum
AAD45358.1	AF160870	Brassica napus	CAA09194.1	AJ010455	Triticum aestivum
AAB52409.1	U76831	Brassica napus	CAB66331.1	AJ279689	Betula pendula
CAA33082.1	X14959	Spinacia oleracea	SEQ ID NO. 1261		
AAC19392.1	AF069314	Mesembryanthemum crystallinum	AAB18669.1	U11716	Pisum sativum
CAA45098.1	X63537	Pisum sativum	AAD25355.1	AF115574	Pisum sativum
AAC49357.1	U35830	Pisum sativum	AAA33662.1	M18250	Pisum sativum
AAC04671.1	AF018174	Brassica napus	SEQ ID NO. 1264		
SEQ ID NO. 1255			AAB40396.1	U80071	Mesembryanthemum crystallinum
CAA52213.1	X74115	Picea abies	BAA0331.1	D14044	Cucurbita sp.
AAC35342.1	AF072449	Ipomoea trifida	AAA34030.1	J03492	Spinacia oleracea
AAC35340.1	AF072447	Ipomoea trifida	AAB82143.1	AF022740	Oryza sativa
CAA11153.1	AJ223177	Nicotiana tabacum			
CAA11154.1	AJ223178	Nicotiana tabacum			

CAA63482.1	X92888	Lycopersicon esculentum	AAF91324.1	AF244890	Glycine max
AAC32392.1	AF082874	Medicago sativa	AAF91323.1	AF244889	Glycine max
AAC333509.1	U62485	Nicotiana tabacum	AAB47424.1	U59317	Lycopersicon pimpinellifol
AAF03097.1	AF162196	Lactuca sativa	AAF76307.1	AF220602	Lycopersicon pimpinellifol
SEQ ID NO. 1268			BAA94510.1	AB041504	Populus nigra
AAC78593.1	AF053995	Lycopersicon esculentum	BAA94509.1	AB041503	Populus nigra
AAC78591.1	AF053993	Lycopersicon esculentum	AAG16628.1	AY007545	Brassica napus
AAC78596.1	AF053998	Lycopersicon esculentum	AAF76314.1	AF220603	Lycopersicon esculentum
AAC78592.1	AF053994	Lycopersicon esculentum	AAK11568.1	AF318492	Lycopersicon hirsutum
AAD50430.1	AF166121	Hordeum vulgare	AAF59905.1	AF197946	Glycine max
AAC78595.1	AF053997	Lycopersicon esculentum	BAA78764.1	AB023482	Oryza sativa
BAB08215.1	AF002539	Oryza sativa	AAB47422.1	U59318	Lycopersicon esculentum
BAA96776.1	AF002521	Oryza sativa	SEQ ID NO. 1270		
AAC78594.1	AF053996	Lycopersicon pimpinellifolium	AAG00510.1	AF285172	Phaseolus vulgaris
CAA05276.1	AJ002236	Lycopersicon pimpinellifolium	CAB51834.1	00069	Oryza sativa
CAA05279.1	AJ002237	Lycopersicon esculentum	CAA97692.1	Z73295	Catharanthus roseus
CAB55409.1	AL117265	Oryza sativa	AAK21965.1	AY028699	Brassica napus
CAA05274.1	AJ002236	Lycopersicon pimpinellifolium	AAF59905.1	AF197946	Glycine max
AAA65235.1	U15936	Lycopersicon pimpinellifolium	AAF59906.1	AF197947	Glycine max
CAA05268.1	AJ002235	Lycopersicon hirsutum	AAF91324.1	AF244890	Glycine max
AAC80225.1	U72723	Oryza longistaminata	AAF91322.1	AF244888	Glycine max
AAC49123.1	U37133	Oryza sativa	AAF91323.1	AF244889	Glycine max
SEQ ID NO. 1269			BAA78764.1	AB023482	Oryza sativa
AAG00510.1	AF285172	Phaseolus vulgaris	AAK11567.1	AF318491	Lycopersicon hirsutum
AAK21965.1	AY028699	Brassica napus	BAA84787.1	AP000559	Oryza sativa
CAA97692.1	Z73295	Catharanthus roseus	BAA83373.1	AP000391	Oryza sativa
CAB51834.1	00069	Oryza sativa	AAF76313.1	AF220603	Lycopersicon esculentum
AAK11567.1	AF318491	Lycopersicon hirsutum	AAB47421.1	U59316	Lycopersicon esculentum
AAF76313.1	AF220603	Lycopersicon esculentum	AAC36318.1	AF053127	Malus x domestica
AAB47421.1	U59316	Lycopersicon esculentum	BAA94509.1	AB041503	Populus nigra
AAK11566.1	AF318490	Lycopersicon hirsutum	AAF76306.1	AF220602	Lycopersicon pimpinellifolium
AAB47423.1	U59315	Lycopersicon pimpinellifolium	AAG16628.1	AY007545	Brassica napus
ARG03090.1	AC073405	Oryza sativa	AAB47423.1	U59315	Lycopersicon pimpinellifolium
AAF76306.1	AF220602	Lycopersicon pimpinellifolium	AAC48914.1	U02271	Lycopersicon pimpinellifolium
AAC48914.1	U02271	Lycopersicon pimpinellifolium	AAK11566.1	AF318490	Lycopersicon pimpinellifolium
AAB09771.1	U67422	Zea mays	BAA94510.1	AB041504	Lycopersicon hirsutum
AAK11569.1	AF318493	Lycopersicon hirsutum	ARG03090.1	AC073405	Populus nigra
AAF59906.1	AF197947	Glycine max	AAB47424.1	U59317	Oryza sativa
CAG61510.1	X89226	Oryza sativa	AAK11569.1	AF318493	Lycopersicon pimpinellifolium
			AAF76307.1	AF220602	Lycopersicon pimpinellifolium

AAF43496.1	AF131222	Lophopyrum elongatum	AAA17409.1	U02607	Solanum tuberosum
AAK11674.1	AF339747	Lophopyrum elongatum	BAB13369.1	AB048531	Psophocarpus tetragonolobus
AAF76314.1	AF220603	Lycopersicon esculentum	CAA30142.1	X07130	Solanum tuberosum
AAK11568.1	AF318492	Lycopersicon hirsutum	AAB67842.1	U60197	Gossypium hirsutum
			CAB01591.1	Z78202	Persea americana
SEQ ID NO. 1271			CAA45821.1	X64518	Nicotiana tabacum
BAA82826.1	AB023464	Arabis gemmifera	CAA33517.1	X15494	Solanum tuberosum
AAF69793.1	AF135153	Arabis parishii	AAB41324.1	U03591	Medicago sativa
AAF69785.1	AF135145	Arabis lignifera	AAB41325.1	U83592	Medicago sativa
AAF69775.1	AF135135	Arabis drummondii	AAA33756.1	M13968	Phaseolus vulgaris
AAF69777.1	AF135137	Arabis fecunda	CAA71402.1	Y10373	Medicago truncatula
AAF69783.1	AF135143	Arabis lemmonii	AA75196.1	L37876	Pisum sativum
AAF69772.1	AF135132	Arabis gunnisoniana	AAB23263.1	S43926	Phaseolus vulgaris
AAF69780.1	AF135140	Arabis glabra	AAG23965.1	AF307511	Vigna sesquipedalis
AAF69778.1	AF135138	Arabis glabra	CAA61278.1	X88800	Vigna unguiculata
AAF69784.1	AF135144	Arabis lemmonii	AAA80656.1	U30324	Theobroma cacao
AAF69792.1	AF135152	Arabis parishii			
AAA32986.1	M95835	Brassica napus	SEQ ID NO. 1272		
AAF69786.1	AF135146	Arabis lignifera	CAB57457.2	AJ249786	Nicotiana tabacum
AAF69788.1	AF135148	Arabis lyallii	AAB57668.1	U82974	Citrus sinensis
AAF69781.1	AF135141	Arabis gunnisoniana			
AAF69770.1	AF135130	Arabis holboellii	SEQ ID NO. 1273		
AAF69773.1	AF135133	Arabis blepharophylla	CAA40796.1	X57564	Armoracia rusticana
AAF69789.1	AF135149	Arabis microphylla	BAA08499.1	D49551	Oryza sativa
AAF69776.1	AF135136	Arabis fecunda	CAA66037.1	X97351	Populus balsamifera subsp.
AAF69791.1	AF135151	Arabis microphylla	trichocarpa		
AAF69787.1	AF135147	Arabis lignifera	BAA84764.1	D84400	Oryza sativa
AAF69790.1	AF135150	Arabis microphylla	CAB94692.1	AJ242742	Ipomoea batatas
AAF69782.1	AF135142	Halimolobos perplexa var. perplexa	BAA06335.1	D30653	Populus kitakamiensis
AAF69774.1	AF135134	Arabis blepharophylla	BAA11853.1	D83225	Populus nigra
CAA45822.1	X64519	Nicotiana tabacum	AAD37427.1	AF149277	Phaseolus vulgaris
CAA35945.1	X51599	Nicotiana tabacum	AAD37430.1	AF149280	Phaseolus vulgaris
CAC17793.1	AJ301671	Nicotiana sylvestris	BAA11852.1	D83224	Populus nigra
CAA34813.1	X16939	Nicotiana tabacum	CAA66035.1	X97349	Populus balsamifera subsp.
CAA34812.1	X16938	Nicotiana tabacum	trichocarpa		
AAB23374.1	S44869	Nicotiana tabacum	CAA66034.1	X97348	Populus balsamifera subsp.
AAA34070.1	M15173	Nicotiana tabacum	trichocarpa		
AAA18332.1	U02605	Solanum tuberosum	BAA07241.1	D38051	Populus kitakamiensis
CAA78845.1	Z15140	Lycopersicon esculentum	BAA92500.1	AP001383	Oryza sativa
AAA17408.1	U02606	Solanum tuberosum	CAA50597.1	X71593	Lycopersicon esculentum
			CAB67121.1	Y19023	Lycopersicon esculentum

CAA66036.1	X97350	Populus balsamifera subsp.	AAA32657.1	M36100	Medicago sativa
trichocarpa			AAC49883.1	U76030	Oryza sativa
AAB47602.1	L07554	Linum usitatissimum	CAA31750.1	X13375	Medicago sativa
CAA62226.1	X90693	Medicago sativa	BAA31157.1	AB015721	Pisum sativum
AAA34108.1	J02979	Nicotiana tabacum	AAB48005.1	M91077	Medicago sativa
CAA62227.1	X90694	Medicago sativa	AAA03002.1	M23312	Sesbania rostrata
BAA06334.1	D30652	Populus kitakamiensis	BAA31156.1	AB015720	Pisum sativum
BAA01992.1	D11396	Nicotiana tabacum	AAK07676.1	AY026343	Lycopersicon esculentum
AAD43561.1	AF155124	Gossypium hirsutum	AAC04853.1	U50083	Lupinus luteus
BAA82306.1	AB027752	Nicotiana tabacum	CAA37898.1	X53950	Casuarina glauca
AAC98519.1	AF007211	Glycine max	AAB70097.1	U94968	Hordeum vulgare
BAA14143.1	D90115	Armoracia rusticana	CAA68462.1	Y00401	Lupinus luteus
AAB97734.1	AF014502	Glycine max	AAA97887.1	U47143	Glycine max
AAF63027.1	AF244924	Spinacia oleracea	AAF44664.1	AF236080	Zea mays
CAA62225.1	X90692	Medicago sativa	AAC49881.1	U76028	Oryza sativa
BAA01877.1	D11102	Populus kitakamiensis	AAC49884.1	U76031	Oryza sativa
AAF63026.1	AF244923	Spinacia oleracea	AAG01183.1	AF291052	Zea mays subsp. parviglumis
BAA14144.1	D90116	Armoracia rusticana	AAB86653.1	U27194	Parasponia andersonii
AAB41810.1	L36156	Medicago sativa	CAA68405.1	Y00296	Trema tomentosa
AAA34050.1	M74103	Nicotiana sylvestris	AAO30305.1	M23313	Sesbania rostrata
CAA62597.1	X91172	Raphanus sativus	AAG01375.1	AY005818	Zea mays subsp. mays
AAB02554.1	L37790	Stylosanthes humilis	CAA40900.1	X57733	Medicago truncatula
CAA76680.1	Y17192	Cucurbita pepo	CAA38024.1	X54089	Medicago sativa
CAA71492.1	Y10466	Spinacia oleracea	AAG29748.1	AF172172	Medicago sativa
BAA94962.1	AB042103	Asparagus officinalis	AAC28426.1	AF027215	Trema orientalis
BAA77389.1	AB024439	Scutellaria baicalensis	BAA24088.1	AB009844	Pisum sativum
AAD37428.1	AF149278	Phaseolus vulgaris	CAA90869.1	Z54158	Vicia faba
AAB41811.1	L36157	Medicago sativa	CAB63706.1	AJ131349	Trema virgata
AAB06183.1	M37636	Arachis hypogaea	CAA90870.1	Z54159	Trema virgata
			CAB63707.1	AJ131350	Vicia faba
			CAB63708.1	AJ131351	Trema virgata
			CAA40899.1	X57732	Medicago truncatula
SEQ ID NO. 1274		Cichorium intybus x Cichorium	SEQ ID NO. 1275		
CAA07547.1	AJ007507		CAC07206.1	AJ278966	Brassica napus
endivia			AAD01600.1	AF016713	Lycopersicon esculentum
AAA33018.1	L28826	Casuarina glauca	AAC32034.1	AF023472	Hordeum vulgare
AAA18503.1	U09671	Canavalia lineata	AAF20002.1	AF213936	Prunus dulcis
CAA32044.1	X13815	Sesbania rostrata	AAF07875.1	AF140606	Oryza sativa
CAA31859.1	X13505	Sesbania rostrata	BAB19757.1	AB052785	Glycine max
CAA32043.1	X13814	Sesbania rostrata			
AAC49882.1	U76029	Oryza sativa			
CAA32492.1	X14311	Medicago sativa			
BAA31155.1	AB015719	Pisum sativum			



BAB19756.1	AB052784	Glycine max	CAA64442.1	X94986	Manihot esculenta
BAB19760.1	AB052788	Glycine max	AAB22162.1	S35175	Manihot esculenta
AAB69642.1	AF000392	Lotus japonicus	AAA91166.1	U39228	Prunus avium
CAA93316.1	269370	Cucumis sativus	AAF34650.1	AF221526	Prunus serotina
AAD16016.1	AF080545	Nepenthes alata	AAF03675.1	AF149311	Rauvolfia serpentina
AAD42860.1	AF154930	Prunus dulcis	CAA57913.1	X82577	Brassica napus
SEQ ID NO. 1276			BAA78708.1	AB003089	Polygonum tinctorium
BAA25753.1	AB012932	Vigna radiata	BAA11831.1	D83177	Costus speciosus
AAF91350.1	AF256229	Zea mays	AAG25897.1	AF170087	Cucurbita pepo
BAA75232.1	AB018526	Ipomoea nil	AAF04007.1	AF163097	Dalbergia cochinchinensis
SEQ ID NO. 1278			AAC69619.1	AF072736	Pinus contorta
CRA11219.1	AJ223281	Manihot esculenta	AAB38784.1	U72154	Brassica nigra
AAC49184.1	U40402	Hevea brasiliensis	AAD02839.1	AF082991	Avena sativa
CAA82334.1	229091	Manihot esculenta	AAA87339.1	L41869	Hordeum vulgare
CAA11428.1	AJ223506	Manihot esculenta	AAB71381.1	U95298	Manihot esculenta
SEQ ID NO. 1279			CAA55196.1	X78433	Avena sativa
AAG43549.1	AF211531	Nicotiana tabacum	AAC49177.1	U33817	Sorghum bicolor
AAG43548.1	AF211530	Nicotiana tabacum	AAD09850.1	U44087	Zea mays
BAA78738.1	AB023482	Oryza sativa	AAG00614.1	AF293849	Secale cereale
CAC12822.1	AJ299252	Nicotiana tabacum	AAF28800.1	AF112888	Catharanthus roseus
AAF76898.1	AF274033	Atriplex hortensis	CAA40058.1	X56734	Trifolium repens
CAB96899.1	AJ251249	Catharanthus roseus	CAA40057.1	X56733	Trifolium repens
CAB96900.1	AJ251250	Catharanthus roseus	AAD105C3.1	U33816	Zea mays
AAC24587.1	AF071893	Prunus armeniaca	AAA65946.1	U25157	Zea mays
AAK01089.1	AF298231	Hordeum vulgare	CAA52293.1	X74217	Zea mays
BAB16083.1	AB036883	Oryza sativa	AAB03266.1	U44773	Zea mays
BAB03248.1	AB037183	Oryza sativa	AAK07429.1	AF321287	Musa acuminata
AAF23899.1	AF193803	Oryza sativa	CAA79989.2	Z21977	Brassica napus
BAA07321.1	D38123	Nicotiana tabacum	AAA84906.1	U28047	Oryza sativa
AAG43545.1	AF211527	Nicotiana tabacum	CAC08209.1	AJ005950	Cicer arietinum
AAF63205.1	AF245119	Mesembryanthemum crystallinum	SEQ ID NO. 1283		
AAC62619.1	AF057373	Nicotiana tabacum	AAB36223.1	S81261	Brassica napus
BAA99376.1	AP002526	Oryza sativa	AAB36222.1	S81261	Brassica napus
SEQ ID NO. 1280			AAC49266.1	U33885	Brassica napus
CAB57457.2	AJ249786	Nicotiana tabacum	AAC49265.1	U33884	Brassica napus
SEQ ID NO. 1282			AAF37266.1	AF220405	Vitis riparia
			AAD28439.1	AF120092	Nicotiana tabacum
			SEQ ID NO. 1284		
			AAD03693.1	AF084554	Brassica napus

Platid Solanum demissum	CAAL10372.1	AJ131455	SEQ ID NO. 1286	SEQ ID NO. 1288	Oryza sativa	SEQ ID NO. 1291	SEQ ID NO. 1290	SEQ ID NO. 1289	Platid Solanum demissum
Capsicum annuum	CAAS0750.1	X71952	AAAB07452.1	AAB62693.1	Sorghum bicolor	AAF74566.1	AAC49375.1	BAA94228.1	Capsicum annuum
			AAAB63591.1	CAA73067.1	Sorghum bicolor	AAF74565.1	CAC24490.1	BAA94224.1	
			AAAF60293.1	CAA73068.1	Zea mays	AAF74567.1	AAC49374.1	BAA94236.1	
			AAAB59307.1	AAAF22219.1	Oryza sativa	AAF74568.1	AAC49376.1	BAA94219.1	Brassica napus
				BAA83688.1	Triticum aestivum	AAG43998.1		BAA94215.1	Oryza sativa
				BAA34675.1	Oryza sativa	CAA68813.1		AAC49181.1	Lycopersicon esculentum
				BAA83689.1	Oryza sativa	CAA53192.1		AAC49182.1	Spinacia oleracea
				BAA96628.1	Nicotiana tabacum	CAB52689.1		AB002109	
				BAA05649.1	Glycine max	CAA39036.1		AB052885	
				AAAD23582.1	Cucumis sativus	CAA47324.1		AB052885	
				CAAF71142.1	Solanum tuberosum	CAA09419.1		AB052885	
				CAAG65244.1	Hordeum vulgare	CAB07812.1		AB052885	
				CAAS7898.1	Hordeum vulgare	BAB19864.1		AB052885	
				CAAC99329.1	Hordeum vulgare	AAA79761.1		AB052885	
				AAAB05457.1	Oryza sativa	AAB06594.1		AB052885	
				CAAA07813.1	Oryza sativa	CAA04511.1		AB052885	
				CAAA6556.1	Hordeum vulgare	CAA70777.1		AB052885	
				CAAA6554.1	Hordeum vulgare	CAB06079.1		AB052885	
				AAAD00239.1	Nicotiana tabacum	AAA79857.1		AB052885	
				BAA13608.1	Oryza sativa	BAB19863.1		AB052885	
				AAG60195.1	Oryza sativa	BAB19862.1		AB052885	
				BAA19573.1	Oryza sativa	CAB52688.1		AB052885	
				AAB68962.1	Glycine max	BAA83398.1		AB052885	
				CAAB89202.1	Chlamydomonas eugametos			AB052885	
				AAAB58348.1	Triticum aestivum			AB052885	
				AAAD00240.1	Nicotiana tabacum			AB052885	
				CAAA06503.1	Craterostigma plantagineum			AB052885	
				AAAF27340.1	Vicia faba			AB052885	
				AAA96325.1	Triticum aestivum			AB052885	
				CAAB1443.1	Mesembryanthemum crystallinum			AB052885	
				AAAF21062.1	Dunaliella tertiolecta			AB052885	

CAB52690.1	AJ132225	Lycopersicon esculentum	CAB93959.1	AJ289701	Vicia faba
AAD5054.1	AF173655	Beta vulgaris	BAA32777.1	AB012044	Raphanus sativus
SEQ ID NO. 1293			AAG23179.1	AF299050	Brassica oleracea
CAA78388.1	Z13998	Petunia x hybrida	AAG23180.1	AF299051	Brassica oleracea
CAA78387.1	Z13997	Petunia x hybrida	BAA92258.1	AB030695	Raphanus sativus
CAA78386.1	Z13996	Petunia x hybrida	CAA64896.1	X95640	Brassica oleracea
			AAF65846.1	AF255796	Allium cepa
SEQ ID NO. 1294			SEQ ID NO. 1300		
AAG13395.1	AF283006	Oryza sativa	AAC39318.1	AF029858	Sorghum bicolor
AAB18207.1	U73216	Triticum aestivum	AAA19701.1	I24438	Thlaspi arvense
			BAB40323.1	AB037244	Asparagus officinalis
SEQ ID NO. 1296			BAB40324.1	AB037245	Asparagus officinalis
BAA92260.1	AB030697	Raphanus sativus	AAA32913.1	M32885	Persea americana
AAD39374.1	AF118383	Brassica napus	AAB94589.1	AF022460	Glycine max
BAA92261.1	AB030698	Raphanus sativus	AAB94588.1	AF022459	Glycine max
AAD39373.1	AF118382	Brassica napus	CAA70575.1	Y09423	Nepeta racemosa
BAA32778.1	AB012045	Raphanus sativus	AAD47832.1	AF166332	Nicotiana tabacum
AAC17529.1	AF067185	Samanea saman	CAB56503.1	AJ238612	Catharanthus roseus
AAK26758.1	AF326491	Zea mays	AAE27282.1	AF122821	Capsicum annuum
BAB40141.1	AB058678	Pyrus communis	AAB94584.1	AF022157	Glycine max
AAB67868.1	U60147	Beta vulgaris	BAA03635.1	D14990	Solanum melongena
AAK26761.1	AF326494	Zea mays	CAA50645.1	X71654	Solanum melongena
AAK26760.1	AF326493	Zea mays	CAA50312.1	X70981	Solanum melongena
BAB40143.1	AB058680	Pyrus communis	CAA70576.1	Y09424	Nepeta racemosa
AAK26759.1	AF326492	Zea mays	BAB40322.1	AB036772	Triticum aestivum
AAD28761.1	AF130975	Zea mays	AAD44152.1	AF124817	Mentha x piperita
AAF65845.1	AF255795	Allium cepa	AAD44151.1	AF124816	Mentha x piperita
AAK26763.1	AF326496	Zea mays	AAD44150.1	AF124815	Mentha spicata
AAC16545.1	AF062393	Oryza sativa	CAA83941.1	Z33875	Mentha x piperita
CAB46351.1	Y18312	Solanum tuberosum	AAD56282.1	AF155332	Petunia x hybrida
AAK26762.1	AF326495	Zea mays	AAG44132.1	AF218296	Pisum sativum
AAC32107.1	AF051202	Picea mariana	CAC27827.1	AJ295719	Catharanthus roseus
AAA86991.1	U18403	Atriplex canescens	AAD37433.1	AF150881	Lycopersicon esculentum x
AAG30607.1	AF314656	Brassica oleracea	Lycopersicon peruvianum		
AAA99274.1	I77969	Spinacia oleracea	AAG14963.1	AF214009	Brassica napus
CAB07783.1	Z93764	Picea abies	CAA57424.2	X81830	Zea mays
AAG02208.1	AF290201	Solanum chacoense	CAA72207.1	Y11403	Zea mays
AAB67869.1	U60148	Beta vulgaris	CAA65580.1	X96784	Nicotiana tabacum
AAF61463.1	AF139814	Triticum aestivum	AAG14962.1	AF214008	Brassica napus
AAF78062.1	AF266760	Vicia faba	AAG14961.1	AF214007	Brassica napus



[illegible]

BAB21001.1	AB054061	Brassica rapa	SEQ ID NO. 1315	AP000615	Oryza sativa
BAA78764.1	AB023482	Oryza sativa	BAA85398.1	AF215852	Nicotiana tabacum
BAA07576.1	D38563	Brassica rapa	AAF74566.1	AF215837	Apium graveolens var. dulc
AAB47422.1	U59318	Lycopersicon esculentum	AAG43998.1	AF215853	Solanum tuberosum
BAA21132.1	D88193	Brassica rapa	AAF74567.1	AF215854	Zea mays
			AAF74568.1	AF215851	Spinacia oleracea
SEQ ID NO. 1308			AAF74565.1	X75440	Chlorella kessleri
BAA20482.1	D85610	Spinacia oleracea	CAA53192.1	Y07520	Chlorella kessleri
AAC50011.1	U85494	Zea mays	CAA68813.1	Z83829	Picea abies
AAC50021.1	U85495	Zea mays	CAB06079.1	X55349	Chlorella kessleri
BAA77218.1	AB026197	Lithospermum erythrorhizon	CAA39036.1	X66856	Nicotiana tabacum
			CAA47324.1	Z93775	Vicia faba
SEQ ID NO. 1311			CAB07812.1	U38651	Medicago truncatula
AAG41777.1	AF212991	Cucurbita maxima	AA066594.1	L08196	Ricinus communis
AAK11616.1	AF326277	Hordeum vulgare	AAA79761.1	AJ132224	Lycopersicon esculentum
AAK00946.1	AF318211	Taxus cuspidata	CAB52689.1	AJ010942	Lycopersicon esculentum
AAC49659.1	U74319	Sorghum bicolor	CAA09419.1	AF173655	Beta vulgaris
AAA17732.1	L19074	Catharanthus roseus	AAD55054.1	AB052884	Oryza sativa
CAB56503.1	AJ238612	Catharanthus roseus	BAB19863.1	Y09590	Vitis vinifera
AAB17070.1	U54770	Lycopersicon esculentum	CAA70777.1	AJ001061	Vitis vinifera
CAB41490.1	AJ238439	Cicer arietinum	CAA04511.1	AB052885	Oryza sativa
AAD44150.1	AF124815	Mentha spicata	BAB19864.1	AJ132225	Lycopersicon esculentum
BAA74465.1	AB022732	Glycyrrhiza echinata	CAB52690.1	AB052883	Oryza sativa
BAA22422.1	AB001379	Glycyrrhiza echinata	BAB19862.1	AJ132223	Lycopersicon esculentum
CAA10067.1	AJ012581	Cicer arietinum	CAB52688.1		
BAB40322.1	AB036772	Triticum aestivum	SEQ ID NO. 1316		
CAB43505.1	AJ239051	Cicer arietinum	CAA48915.1	X69165	Solanum tuberosum
CAB56742.1	AJ249800	Cicer arietinum	AAD45391.1	AF167416	Apium graveolens
AAF89209.1	AF279252	Vigna radiata	AAD45390.1	AF167415	Apium graveolens
BAA93634.1	AB025016	Lotus japonicus	AAC99332.1	AF063400	Apium graveolens
CAA04116.1	AJ000477	Helianthus tuberosus	AAF65765.1	AF242307	Euphorbia esula
CAA04117.1	AJ000478	Helianthus tuberosus	CAA57727.1	X82276	Nicotiana tabacum
AAF34534.1	AF195813	Lupinus albus	CAA53390.1	X75764	Plantago major
CAA83941.1	Z33875	Mentha x piperita	CAC19689.1	AJ303199	Daucus carota
AAF34533.1	AF195812	Pisum sativum	BAA89458.1	AB036758	Daucus carota
AAF45142.1	AF195818	Glycine max	CAA83436.1	Z31561	Ricinus communis
			AAF04294.1	AF191024	Asarina barclaiana
SEQ ID NO. 1313			CAA76369.1	Y16768	Daucus carota
AAD01804.1	AF026480	Dianthus caryophyllus	CAB07811.1	Z93774	Vicia faba
AAB07724.1	U55867	Ipomoea nil	AAD53000.1	U64967	Beta vulgaris

CAA47604.1	X67125	Spinacia oleracea	CAA62150.1	X90560	Physcomitrella patens
AAD41024.1	AF109922	Pisum sativum	BAA94696.1	AB041711	Chara corallina
CAA58730.1	X83850	Beta vulgaris	BAA96536.1	AB044286	Chara corallina
AAF04295.1	AF191025	Alonsoa meridionalis	BAA94697.1	AB041712	Chara corallina
AAD34610.1	AF149981	Nicotiana tabacum	BAA87825.1	AP000815	Oryza sativa
CAA59113.1	X84379	Plantago major	CAA61980.1	X89890	Bidens pilosa
CAA57726.1	X82275	Lycopersicon esculentum	AAA19571.1	U10150	Brassica napus
CAA76368.1	Y16767	Daucus carota	AAA87347.1	M88307	Brassica juncea
CAA76367.1	Y16766	Daucus carota	CAA74111.1	Y13784	Mougeotia scalaris
CAC19688.1	AJ303198	Daucus carota	AAA92677.1	U13736	Pisum sativum
CAA12256.1	AJ224961	Ricinus communis	AAA33083.1	M20729	Chlamydomonas reinhardtii
AAD55269.1	AF182445	Vitis vinifera	AAK25753.1	AF334833	Castanea sativa
AAG09270.1	AF176950	Lycopersicon esculentum	AAF73157.1	AF150059	Brassica napus
AAG25923.1	AF237780	Solanum tuberosum	CAA74307.1	Y13974	Zea mays
CAB75881.1	AJ272308	Hordeum vulgare	AAA34238.1	L20507	Vigna radiata
CAC33492.1	AJ310643	Ricinus communis	AAA34237.1	L20691	Vigna radiata
CAB75882.1	AJ272309	Hordeum vulgare	AAC49587.1	U49105	Triticum aestivum
AAF90181.1	AF280050	Oryza sativa subsp. indica	AAC49586.1	U49104	Triticum aestivum
BAA24071.1	D87819	Oryza sativa	AAC49585.1	U49103	Triticum aestivum
BAA83501.1	AB008464	Zea mays	AAC49584.1	U48693	Triticum aestivum
AAD45932.1	AF168771	Betula pendula	AAC49580.1	U48689	Triticum aestivum
AAG12987.1	AF166498	Lycopersicon esculentum	AAC49579.1	U48688	Triticum aestivum
BAA76434.1	AB025006	Cicer arietinum	AAC49578.1	U48242	Triticum aestivum
SEQ ID NO. 1319			AAB36130.1	S81594	Vigna radiata
AAB65777.1	U97522	Vitis vinifera	AAA92681.1	U13882	Pisum sativum
AAB65776.1	U97521	Vitis vinifera	AAA33706.1	M80836	Petunia x hybrida
CAC17793.1	AJ301671	Nicotiana sylvestris	AAA33705.1	M80831	Petunia x hybrida
AAA34070.1	M15173	Nicotiana tabacum	CAA78287.1	Z12827	Oryza sativa
CAA30142.1	X07130	Solanum tuberosum	CAA46150.1	X65016	Oryza sativa
CAA53626.1	X76041	Triticum aestivum	CAA36644.1	X52398	Medicago sativa
SEQ ID NO. 1320			CAA43143.1	X60738	Malus x domestica
CAA11219.1	AJ223281	Manihot esculenta	CAA78301.1	Z12839	Lilium longiflorum
AAC49184.1	U40402	Hevea brasiliensis	AAB68399.1	U79736	Helianthus annuus
CAA82334.1	Z29091	Manihot esculenta	CAA42423.1	X59751	Daucus carota
CAA11428.1	AJ223506	Manihot esculenta	AAA32938.1	M27303	Hordeum vulgare
SEQ ID NO. 1322			BAA88540.1	AP000969	Oryza sativa
AAK11255.1	AF329729	Nicotiana tabacum	AAG27432.1	AF295637	Elaeis guineensis
AAD10245.1	AF030033	Phaseolus vulgaris	AAG11418.1	AF292108	Prunus avium
			AAC36059.1	AF042840	Oryza sativa

SEQ ID NO. 1324

AAF61440.1	AF138264	Ipomoea batatas	AAC14577.1	U72396	Lycopersicon esculentum
AAF61442.1	AF138266	Ipomoea batatas	CAA65020.1	X95716	Petroselinum crispum
AAF61441.1	AF138265	Ipomoea batatas	AAB39336.1	M99430	Ipomoea nil
AAD29084.1	AF082181	Solanum melongena	AAA33670.1	M33901	Pisum sativum
AAK27969.1	AF242373	Ipomoea batatas	AAD41409.1	AF159562	Prunus dulcis
CAA08906.1	AJ009878	Cicer arietinum	CAA67206.1	X98617	Medicago sativa
CAA78403.1	Z14028	Lycopersicon esculentum	AAC36312.1	AF090115	Lycopersicon esculentum
CAB17075.1	Z99953	Phaseolus vulgaris	CAA38012.1	X54075	Zea mays
BAA92495.1	AB038598	Vigna mungo	CAA38013.1	X54076	Zea mays
AAB67878.1	U59465	Vicia faba	CAA41218.1	X58279	Triticum aestivum
CAA82995.1	Z30338	Vicia sativa	AAB26481.1	S59777	Zea mays
BAA08244.1	D45402	Zea mays	AAB01561.1	L47717	Picea glauca
CAB17077.1	Z99955	Phaseolus vulgaris	AAB39335.1	M99429	Ipomoea nil
CAB16316.1	Z99172	Vicia sativa	AAB01562.1	L47740	Picea glauca
CAA83673.1	Z32795	Glycine max	CAA67726.1	X99346	Picea abies
CAB53397.1	AJ245868	Medicago sativa	AAD09184.1	AF089845	Funaria hygrometrica
AAB62937.1	AF007215	Lavatera thuringiaca	BAA04841.1	D21817	Lilium longiflorum
CAA57675.1	X82185	Zea mays	BAA04842.1	D21818	Lilium longiflorum
BAA96501.1	AB032168	Nicotiana tabacum	AAD09185.1	AF089846	Funaria hygrometrica
CAB17076.1	Z99954	Phaseolus vulgaris	BAA04840.1	D21816	Lilium longiflorum
AAB68374.1	U52970	Phaseolus vulgaris	CAA63570.1	X92983	Pseudotsuga menziesii
CAA12118.1	AJ224766	Phaseolus vulgaris	CAA63571.1	X92984	Pseudotsuga menziesii
AAD48496.1	AF172856	Lycopersicon esculentum	AAD30452.1	AF123255	Lycopersicon esculentum
CAB17074.1	Z99952	Phaseolus vulgaris	AAD09178.1	AF087640	Funaria hygrometrica
CAA05894.1	AJ003137	Lycopersicon esculentum	AAB63311.1	U46545	Helianthus annuus
AAD53012.1	AF089849	Brassica napus	CAA39603.1	X56138	Lycopersicon esculentum
CAB53515.1	AJ245924	Solanum tuberosum	AAC39360.1	U63631	Fragaria x ananassa
CAA88629.1	Z48736	Lycopersicon esculentum	AAA33672.1	M33899	Pisum sativum
AAC49455.1	U41902	Pseudotsuga menziesii	AAD30453.1	AF123256	Lycopersicon esculentum
AAB70820.2	AF019145	Zea mays	AAD30454.1	AF123257	Lycopersicon esculentum
CAB16317.1	Z99173	Nicotiana tabacum	CAA41547.1	X58711	Medicago sativa
AAK27968.1	AF242372	Ipomoea batatas	CAA31785.1	X13431	Triticum aestivum
BAA88898.1	AB020961	Zea mays	AAB39856.1	U81385	Oryza sativa
AAD53011.1	AF089848	Brassica napus	CAA41546.1	X58710	Medicago sativa
AAA79915.1	U17135	Dianthus caryophyllus	CAA63901.1	X94191	Pennisetum glaucum
AAB88263.1	AF019147	Zea mays	AAA33910.1	M80939	Oryza sativa
AAB97142.1	U93166	Prunus armeniaca	AAA33909.1	M80938	Oryza sativa
AAC35211.1	U12637	Hemerocallis hybrid cultivar	CAA43210.1	X60820	Oryza sativa
			AAB03097.1	U21723	Glycine max
			AAC78394.1	U83671	Oryza sativa
			AAC78392.1	U83669	Oryza sativa
SEQ ID NO. 1325					
CAA82653.1	Z29554	Helianthus annuus			



AA09182.1	AF089843	Funaria hygrometrica	AA030453.1	AF123256	Lycopersicon esculentum
SEQ ID NO. 1326			CAA63571.1	X92984	Pseudotsuga menziesii
AAB72109.1	AF022217	Brassica rapa	CAA31785.1	X13431	Triticum aestivum
CAA08908.1	AJ009880	Castanea sativa	CAA41546.1	X58710	Medicago sativa
AA049336.1	AF166277	Nicotiana tabacum			
CAA41547.1	X58711	Medicago sativa	SEQ ID NO. 1327		
CAB36910.1	AJ000691	Quercus suber	CAA60120.1	X86222	Pisum sativum
AAC39360.1	U63631	Fragaria x ananassa	BAA32547.1	AB017134	Lycopersicon esculentum
BAA33062.1	AB017273	Cuscuta japonica	CAA33388.1	X15333	Chenopodium rubrum
AAB03893.1	M11318	Glycine max	AAB03096.1	U21722	Glycine max
CAA37847.1	X53851	Daucus carota	AAC12279.1	AF035460	Zea mays
AAA61632.1	U08601	Papaver somniferum	AAD03604.1	AF104107	Triticum aestivum
AAA33975.1	M11395	Glycine max	AAB01557.1	L47741	Picea glauca
AAA33672.1	M33899	Pisum sativum	AAD03605.1	AF104108	Triticum aestivum
AAB63311.1	U46545	Helianthus annuus	CAA38037.1	X54103	Plastid Petunia x hybrida
CAB08441.1	Z95153	Helianthus annuus	AAF19022.1	AF197942	Funaria hygrometrica
CAA42222.1	X59701	Helianthus annuus	AAB49626.1	U59917	Lycopersicon esculentum
CAA25578.1	X01104	Helianthus annuus	AAB07023.1	U66300	Chloroplast Lycopersicon
CAA37848.1	X53852	Daucus carota	esculentum		
AAA33974.1	M11317	Glycine max	BAA29064.1	D88584	Nicotiana tabacum
CAB55634.2	AJ237596	Helianthus annuus	AAF19021.1	AF197941	Funaria hygrometrica
AAA33910.1	M80939	Oryza sativa	BAA78385.1	AB020973	Oryza sativa
AAA33909.1	M80938	Oryza sativa	CAA41219.1	X58280	Triticum aestivum
CAA43210.1	X60820	Oryza sativa	AAC96315.1	AF097657	Triticum aestivum
AAC78392.1	U83669	Oryza sativa	AAC96316.1	AF097658	Triticum aestivum
AAB63310.1	U46544	Helianthus annuus	AAC96314.1	AF097656	Triticum aestivum
AAB39856.1	U81385	Oryza sativa	CAA47745.1	X67328	Triticum aestivum
AA030454.1	AF123257	Lycopersicon esculentum	AAC96317.1	AF097659	Triticum aestivum
BAA02160.1	D12635	Oryza sativa	AAA33477.1	L28712	Zea mays
CAA63903.1	X94193	Pennisetum glaucum	BAA29066.1	AB006043	Nicotiana sylvestris
CAA37864.1	X53870	Chenopodium rubrum	BAA29067.1	AB006044	Nicotiana tomentosiformis
AA030452.1	AF123255	Lycopersicon esculentum	BAA29065.1	AB006041	Nicotiana tabacum
CAA46641.1	X65725	Zea mays	AAC01570.1	AF019144	Agrostis stolonifera var.
CAA63902.1	X94192	Pennisetum glaucum	palustris		
CAA63901.1	X94191	Pennisetum glaucum	AA030452.1	AF123255	Lycopersicon esculentum
CAA63570.1	X92983	Pseudotsuga menziesii	CAA39603.1	X56138	Lycopersicon esculentum
AAC78393.1	U83670	Oryza sativa	AA030453.1	AF123256	Lycopersicon esculentum
CAA39603.1	X56138	Lycopersicon esculentum	AA030454.1	AF123257	Lycopersicon esculentum
AAC78394.1	U83671	Oryza sativa	AA049336.1	AF166277	Nicotiana tabacum
AAA33671.1	M33900	Pisum sativum	AAF34133.1	AF161179	Malus x domestica
			AAC39360.1	U63631	Fragaria x ananassa

[illegible]

CAB94692.1	AJ242742	Ipomoea batatas	AAC49150.1	U21940	Cladrastis kentukea
CAR62226.1	X90693	Medicago sativa	CAB96391.1	AJ271873	Phaseolus lunatus
CAR62227.1	X90694	Medicago sativa	CAB96392.1	AJ271874	Phaseolus lunatus
AAB41811.1	L36157	Medicago sativa	CAA76366.1	Y16754	Medicago sativa
AAD37429.2	AF149279	Phaseolus vulgaris	BAA82556.1	AB030083	Populus nigra
CAA71494.1	Y10468	Spinacia oleracea	CAA93830.1	270000	Phaseolus lunatus
AAD11484.1	U51194	Glycine max	AAG16779.1	AF190633	Ulex europaeus
CAC21391.1	AJ401274	Zea mays	AAC49136.1	U21958	Cladrastis kentukea
AAA34108.1	J02979	Nicotiana tabacum	AAB39933.1	U65009	Maackia amurensis
AAD37430.1	AF149280	Phaseolus vulgaris	AAB39934.1	U65010	Maackia amurensis
AAF63027.1	AF244924	Spinacia oleracea	AAA33766.1	L26237	Phaseolus lunatus
CAA62225.1	X90692	Medicago sativa	AAA33143.1	M34270	Dolichos biflorus
AAD37375.1	AF145349	Glycine max	CAA57697.1	X82216	Medicago truncatula
CAB67121.1	Y19023	Lycopersicon esculentum	BAA36413.1	AB012632	Robinia pseudoacacia
AAB41810.1	L36156	Medicago sativa	AAA80182.1	U12783	Robinia pseudoacacia
CAA66037.1	X97351	Populus balsamifera subsp.	BAA04604.1	D17757	Robinia pseudoacacia
trichocarpa			CAA68497.1	Y00440	Pisum sativum
BAA92500.1	AP001383	Oryza sativa	AAC49271.1	U24249	Robinia pseudoacacia
BAA94962.1	AB042103	Asparagus officinalis	AAA80181.1	U12782	Robinia pseudoacacia
AAB97734.1	AF014502	Glycine max	BAA36416.1	AB012635	Robinia pseudoacacia
CAA50597.1	X71593	Lycopersicon esculentum	AAA33676.1	M18160	Pisum sativum
BAA01992.1	D11396	Nicotiana tabacum	CAA47011.1	X66368	Pisum sativum
CAA40796.1	X57564	Armoracia rusticana	AAA33141.1	J02721	Dolichos biflorus
AAD11483.1	U51193	Glycine max	BAA36414.1	AB012633	Robinia pseudoacacia
AAF63026.1	AF244923	Spinacia oleracea	BAA02049.1	D12481	Bauhinia purpurea
AAF65464.2	AF247700	Oryza sativa	AAA80183.1	U12784	Robinia pseudoacacia
BAA11853.1	D83225	Populus nigra	AAC49272.1	U24250	Robinia pseudoacacia
BAA06335.1	D30653	Populus kitakamiensis	AAA82737.1	U18296	Medicago sativa
SEQ ID NO. 1342			AAA74571.1	U22468	Arachis hypogaea
AAG14455.1	AF283707	Tulipa gesneriana	AAB51441.1	U63011	Sophora japonica
AAG14454.1	AF283706	Tulipa gesneriana	AAA74574.1	U22471	Arachis hypogaea
AAG14456.1	AF283708	Tulipa gesneriana	AAG00508.1	AF285121	Sophora flavescens
AAC08401.1	AF053564	Mesembryanthemum crystallinum	AAB39932.1	U65008	Maackia amurensis
SEQ ID NO. 1346			SEQ ID NO. 1347		
AAB51442.1	U63012	Sophora japonica	BAA85400.1	AP000615	Oryza sativa
CAA93829.1	Z69999	Phaseolus lunatus	CAA74909.1	Y14573	Hordeum vulgare
BAA36415.1	AB012634	Robinia pseudoacacia	CAB06083.1	Z83834	Hordeum vulgare
CAA93828.1	Z69998	Phaseolus lunatus	CAA06487.1	AJ005341	Linum usitatissimum
AAC49137.1	U21959	Cladrastis kentukea	SEQ ID NO. 1349		

BAA97124.1	AB016266	Nicotiana sylvestris	CAA72133.1	Y11268	Lycopersicon esculentum
BAA97122.1	AB016264	Nicotiana sylvestris	CAA60737.1	X87323	Capsicum annuum
BAA07321.1	D38123	Nicotiana tabacum	AAC78504.1	U34754	Phaseolus vulgaris
BAA87068.1	AB035270	Matricaria chamomilla	AAA02563.1	M57400	Phaseolus vulgaris
AAC62619.1	AF057373	Nicotiana tabacum	CAA65826.1	X97188	Capsicum annuum
AAD00708.1	U91857	Stylosanthes hamata	AAD08699.1	AF098292	Lycopersicon esculentum
BAA97123.1	AB016265	Nicotiana sylvestris	AAA69908.1	U13054	Lycopersicon esculentum
BAA76734.1	AB024575	Nicotiana tabacum	CAB43938.1	AJ006349	Lycopersicon esculentum
AAF05606.1	AF190770	Oryza sativa	BAA96207.1	AP002094	Fragaria x ananassa
BAB03248.1	AB037183	Oryza sativa	BAA96209.1	AP002094	Oryza sativa
SEQ ID NO. 1352			CAB51903.1	AJ242807	Oryza sativa
AAC24835.1	AF061870	Helianthus annuus	BAA94257.1	AB040769	Brassica napus
SEQ ID NO. 1353			AAC49704.1	U78526	Hordeum vulgare
CAA75575.1	Y15293	Medicago truncatula	AAA20082.1	U00730	Lycopersicon esculentum
BAA85440.1	AP000616	Oryza sativa	CAA11301.1	AJ223386	Glycine max
CAB53493.1	AJ245900	Oryza sativa	CAA11302.1	AJ223387	Fragaria x ananassa
BAA85424.2	AP000616	Oryza sativa	BAA21111.1	D88417	Fragaria x ananassa
BAA85439.1	AP000616	Oryza sativa	CAA65598.1	X96854	Gossypium hirsutum
BAA90641.1	AP001129	Oryza sativa	SEQ ID NO. 1355		Prunus persica
SEQ ID NO. 1354			CAA64798.1	X95552	Cucumis melo
AAA80495.1	U20590	Lycopersicon esculentum	CAA57285.1	X81629	Brassica oleracea
BAB39482.1	AB049199	Populus alba	AAA32981.1	L27664	Brassica napus
BAA85150.1	AB032830	Pisum sativum	CAA57284.1	X81628	Brassica oleracea
AAC12684.1	U76725	Pinus radiata	AAB70883.1	U19856	Pelargonium x hortorum
AAC62241.1	AF077339	Lycopersicon esculentum	AAF36484.1	AF129074	Prunus persica
CAA65828.1	X97190	Capsicum annuum	CAA90904.1	Z54199	Lycopersicon esculentum
CAB59900.1	AJ010950	Capsicum annuum	CAA71738.1	Y10749	Betula pendula
BAB32662.1	AB055886	Atriplex lentiformis	BAA21541.1	AB003514	Actinidia deliciosa
BAA77239.1	AB025796	Populus alba	CAA67216.1	X98627	Malus x domestica
BAB39483.1	AB049200	Populus alba	CAA04895.1	AJ001646	Malus x domestica
AAC12685.1	U76756	Pinus radiata	AAC36461.1	AF030859	Malus x domestica
CAA65597.1	X96853	Prunus persica	AAC37381.1	L21976	Petunia x hybrida
CAA65600.1	X96856	Prunus persica	CAA74328.1	Y14005	Malus x domestica
AAC95009.1	AF074923	Fragaria x ananassa	CAA64799.1	X95553	Cucumis melo
CAB43937.1	AJ006348	Fragaria x ananassa	AAB70884.1	U67861	Pelargonium x hortorum
AAA69909.1	U13055	Lycopersicon esculentum	BAA76387.1	D67038	Pyrus pyrifolia
AAA96135.1	L41046	Pisum sativum	AAB94031.1	AF015787	Malus x domestica
CAA65827.1	X97189	Capsicum annuum	AAC48977.1	U07953	Pelargonium x hortorum
			AAC67233.1	AF033582	Cucumis sativus
			AAC48922.1	U06047	Vigna radiata

AAA33273.1	L35152	Dianthus caryophyllus	BAA83554.1	AP000399	Oryza sativa
CAA41212.1	X58273	Lycopersicon esculentum	CAA53192.1	X75440	Chlorella kessleri
BAA34924.1	AB013101	Lycopersicon esculentum	CAA68813.1	Y07520	Chlorella kessleri
AAF65472.1	AF252628	Brassica juncea	CAA39036.1	X55349	Chlorella kessleri
BAB32502.1	AB044747	Phyllostachys edulis	BAB19862.1	AB052883	Oryza sativa
CAA71140.1	Y10034	Rumex palustris	CAB52688.1	AJ132223	Lycopersicon esculentum
CAA68538.1	Y00478	Lycopersicon esculentum	AAD55054.1	AF173655	Beta vulgaris
AAB71421.1	L29405	Helianthus annuus	CAB52690.1	AJ132225	Lycopersicon esculentum
AAC98808.1	U68215	Carica papaya	AAG43998.1	AF215837	Apium graveolens var. dulc
CAA58232.1	X83229	Nicotiana tabacum	AAF74568.1	AF215854	Zea mays
CAA86468.1	Z46349	Nicotiana tabacum	AAF74567.1	AF215853	Solanum tuberosum
AAA99793.1	U54566	Nicotiana glutinosa	AAF74566.1	AF215852	Nicotiana tabacum
AAA33697.1	L21978	Petunia x hybrida	AAF74565.1	AF215851	Spinacia oleracea
AAF64528.1	AF254125	Carica papaya	AAD37424.1	AF149282	Phaseolus vulgaris
AAA33644.1	M98357	Pisum sativum	AAD45934.1	AF168773	Betula pendula
AAA99792.1	U54565	Nicotiana glutinosa			
AAB97368.1	AF041479	Rumex palustris	SEQ ID NO. 1368		
BAA33378.1	AB006807	Cucumis sativus	AAF20002.1	AF213936	Prunus dulcis
AAB05171.1	U62764	Nicotiana glutinosa	AAD01600.1	AF016713	Lycopersicon esculentum
CRA59749.1	X85747	Oryza sativa	AAC32034.1	AF023472	Hordeum vulgare
BAA06526.1	D31727	Cucumis melo	AAF07875.1	AF140606	Oryza sativa
			CAC07206.1	AJ278966	Brassica napus
			AAB69642.1	AF000392	Lotus japonicus
			BAB19760.1	AB052788	Glycine max
		Nicotiana tabacum	CAA93316.1	Z69370	Cucumis sativus
		Pennisetum ciliare	BAB19757.1	AD052785	Glycine max
			BAB19756.1	AB052784	Glycine max
		Picea glauca	AAD16016.1	AF080545	Nepenthes alata
			AAD42860.1	AF154930	Prunus dulcis
SEQ ID NO. 1359			SEQ ID NO. 1370		
BAA33810.1	AB018441	Lycopersicon esculentum	BAB19760.1	AB052788	Glycine max
AAK15505.1	AF325723	Lycopersicon esculentum	BAB19757.1	AB052785	Glycine max
		Oryza sativa	BAB19756.1	AB052784	Glycine max
SEQ ID NO. 1361		Nicotiana tabacum	AAD01600.1	AF016713	Lycopersicon esculentum
AAB01567.1	L47672	Medicago truncatula	AAC32034.1	AF023472	Hordeum vulgare
		Ricinus communis	CAA93316.1	Z69370	Cucumis sativus
		Vitis vinifera	AAF20002.1	AF213936	Prunus dulcis
		Vitis vinifera	AAF07875.1	AF140606	Oryza sativa
		Ricinus communis	AAB69642.1	AF000392	Lotus japonicus
		Picea abies	CAC07206.1	AJ278966	Brassica napus
		Oryza sativa			
SEQ ID NO. 1365					
CAB52689.1	AJ132224	Lycopersicon esculentum			
CAA09419.1	AJ010942	Lycopersicon esculentum			
BAB19864.1	AB052885	Oryza sativa			
CAA47324.1	X66856	Nicotiana tabacum			
AAB06594.1	U38651	Medicago truncatula			
AA79761.1	L08196	Ricinus communis			
CAA04511.1	AJ001061	Vitis vinifera			
CAA70777.1	Y09590	Vitis vinifera			
AAA79857.1	L08188	Ricinus communis			
CAB06079.1	Z83829	Picea abies			
BAB19863.1	AB052884	Oryza sativa			

AAD16016.1	AF080545	Nepenthes alata	AAC62396.1	AF050756	Ricinus communis
AAD42860.1	AF154930	Prunus dulcis	AAC35211.1	U12637	Hemerocallis hybrid cultiva
SEQ ID NO. 1371			AAD10337.1	U94591	Hordeum vulgare
CAB55409.1	AL117265	Oryza sativa	AAD28477.1	AF133839	Sandersonia aurantiaca
AAC78593.1	AF053995	Lycopersicon esculentum	CAB09699.1	Z97023	Hordeum vulgare
AAC78596.1	AF053998	Lycopersicon esculentum	CAB09697.1	Z97021	Hordeum vulgare
AAC78591.1	AF053993	Lycopersicon esculentum	CAA56844.1	X80876	Oryza sativa
AAC78592.1	AF053994	Lycopersicon esculentum	BAA83472.1	AB004648	Oryza sativa
AAC78594.1	AF053996	Lycopersicon pimpinellifolium	AAB37233.1	U34747	Phalaenopsis sp. SM9108
CAA05276.1	AJ002236	Lycopersicon pimpinellifolium	AAC49406.1	U19267	Zinnia elegans
AAD50430.1	AF166121	Lycopersicon pimpinellifolium	CAA06243.1	AJ004958	Pisum sativum
CAA05268.1	AJ002235	Hordeum vulgare	AAK27968.1	AF242372	Ipomoea batatas
CAA05274.1	AJ002236	Lycopersicon hirsutum	BAA83473.1	AB004819	Oryza sativa
AAA65235.1	U15936	Lycopersicon pimpinellifolium	BAA1170.1	D76415	Oryza sativa
AAC78595.1	AF053997	Lycopersicon esculentum	CAA84378.1	Z34895	Vicia sativa
CAA05279.1	AJ002237	Lycopersicon esculentum	SEQ ID NO. 1373		
SEQ ID NO. 1372			AAC39318.1	AF029858	Sorghum bicolor
AAD48496.1	AF172856	Lycopersicon esculentum	BAB40323.1	AB037244	Asparagus officinalis
AAC49455.1	U41902	Pseudotsuga menziesii	AAA32913.1	M32885	Persea americana
CAB53515.1	AJ245924	Solanum tuberosum	BAB40324.1	AB037245	Asparagus officinalis
CAB17076.1	Z99954	Phaseolus vulgaris	AAAI9701.1	I24438	Thlaspi arvense
BAA88898.1	AB020961	Zea mays	AAB94589.1	AF022460	Glycine max
CAA46863.1	X66061	Pisum sativum	AAB94588.1	AF022459	Glycine max
AAB88263.1	AF019147	Zea mays	CAA70575.1	Y09423	Nepeta racemosa
CAA05894.1	AJ003137	Lycopersicon esculentum	AAD47832.1	AF166332	Nicotiana tabacum
AA79915.1	U17135	Dianthus caryophyllus	AAB94584.1	AF022157	Glycine max
AAD28476.1	AF133838	Sandersonia aurantiaca	AAE27282.1	AF122821	Capsicum annuum
AAB88262.1	AF019146	Zea mays	CAA50312.1	X70981	Solanum melongena
CAA53377.1	X75749	Vicia sativa	CAB56503.1	AJ238612	Catharanthus roseus
CAB16317.1	Z99173	Nicotiana tabacum	CAA50645.1	X71654	Solanum melongena
CAB17074.1	Z99952	Phaseolus vulgaris	BAA03635.1	D14990	Solanum melongena
CAA12118.1	AJ224766	Phaseolus vulgaris	AAD44151.1	AF124816	Mentha x piperita
AAB68374.1	U52970	Phaseolus vulgaris	AAD44152.1	AF124817	Mentha x piperita
CAA57538.1	X82011	Cicer arietinum	CAA83941.1	Z33875	Mentha x piperita
AAB41816.1	U44947	Pisum sativum	AAD44150.1	AF124815	Mentha spicata
AAD54424.1	AF182079	Matricaria chamomilla	BAB40322.1	AB036772	Triticum aestivum
AAK06862.1	AF343446	Actinidia chinensis	CAC27827.1	AJ295719	Catharanthus roseus
CAA52425.1	X74406	Hemerocallis sp.	AAG44132.1	AF218296	Pisum sativum
AAB70820.2	AF019145	Zea mays	AAD56282.1	AF155332	Petunia x hybrida
			AAG14963.1	AF214009	Brassica napus

SEQ ID NO.	1382	1383	1384
AAAD37433.1	AAAF150881	AAAF61647.1	AAAF190634
Lycopersicon peruvianum	Lycopersicon peruvianum	Nicotiana tabacum	Nicotiana tabacum
CAA65580.1	X96784	BAA89009.1	Petunia x hybrida
AAG14961.1	AF214007	AAF17077.1	Sorghum bicolor
AAG14962.1	AF214008	AAF98390.1	Brassica napus
AAB17562.1	U72654	BAA36423.1	Verbena x hybrida
		BAA36421.1	Perilla frutescens
		BAA93039.1	Citrus unshiu
		BAA36422.1	Perilla frutescens
		BAA12737.1	Gentiana triflora
		AAB48444.1	Solanum tuberosum
		BAA19659.1	Perilla frutescens
		CAA54612.1	Manihot esculenta
		BAA89008.1	Petunia x hybrida
		BAA83484.1	Scutellaria baicalensis
		AAB36652.1	Nicotiana tabacum
		AAK28304.1	Nicotiana tabacum
		AAB36653.1	Nicotiana tabacum
		AAD04166.1	Phaseolus lunatus
		AAAD21086.1	Forsythia x intermedia
		CAA54611.1	Manihot esculenta
		AAK28303.1	Nicotiana tabacum
		CAA54609.1	Manihot esculenta
		CAA54613.1	Manihot esculenta
		BAB41026.1	Vitis vinifera
		BAB41024.1	Vitis vinifera
		BAB41022.1	Vitis vinifera
		BAB41017.1	Vitis labrusca x Vitis vinifera
		BAB41020.1	Vitis vinifera
		CAA59450.1	Lycopersicon esculentum
		BAB41025.1	Vitis vinifera
		BAB41023.1	Vitis vinifera
		BAB41018.1	Vitis labrusca x Vitis vinifera
		SEQ ID NO. 1385	
		AAAF6347.1	Vitis vinifera
		BAA28872.1	Pyrus pyrifolia
		AAB38064.1	Prunus avium
		BAA95017.1	Cestrum elegans
		BAA74546.2	Nicotiana tabacum
		AAC36740.1	Malus x domestica

CAC10270.1	AJ243427	Malus x domestica	CAA12118.1	AJ224766	Phaseolus vulgaris
AAB95118.1	U71244	Brassica rapa	CAB17074.1	Z99952	Phaseolus vulgaris
CAC09477.1	AL442113	Oryza sativa	AAD48496.1	AF172856	Lycopersicon esculentum
CAB62167.1	AJ242828	Castanea sativa	AAD53012.1	AF089849	Brassica napus
AAF06346.1	AF195653	Vitis vinifera	CAA05894.1	AJ003137	Lycopersicon esculentum
AAB02259.1	U57787	Avena sativa	BAA08245.1	D45403	Zea mays
AAD55090.1	AF178653	Vitis riparia	BAA88898.1	AB020961	Zea mays
CAA10492.1	AJ131731	Pseudotsuga menziesii	CAB16317.1	Z99173	Nicotiana tabacum
CAA09228.1	AJ010501	Cicer arietinum	AAB88263.1	AF019147	Zea mays
BAA95165.1	AB029918	Nicotiana tabacum	CAA92583.1	Z68291	Pisum sativum
AAF82264.1	AF227324	Vitis vinifera	CAA68192.1	X99936	Zea mays
AAB53368.1	U77657	Oryza sativa	AAC35211.1	U12637	Hemerocallis hybrid cultiv
AAB61590.1	AF003007	Vitis vinifera	AAB97142.1	U93166	Prunus armeniaca
AAB53367.1	U77656	Oryza sativa			
SEQ ID NO. 1386			SEQ ID NO. 1387		
AAF61440.1	AF138264	Ipomoea batatas	AAA33967.1	M76981	Glycine max
AAF61442.1	AF138266	Ipomoea batatas	BAA23563.1	D50094	Phaseolus vulgaris
AAF61441.1	AF138265	Ipomoea batatas	BAA19152.1	AB000585	Phaseolus vulgaris
AAK27969.1	AF242373	Ipomoea batatas	AAA34020.1	M20037	Glycine max
CAB17075.1	Z99953	Phaseolus vulgaris	AAA34022.1	M76980	Glycine max
AAB67878.1	U59465	Vicia faba	AAA34021.1	M20038	Glycine max
CAA08906.1	AJ009878	Cicer arietinum			
CAA82995.1	Z30338	Vicia sativa	SEQ ID NO. 1390		
BAA92495.1	AB038598	Vigna mungo	BAA87043.1	AB035183	Ipomoea batatas
AAD29084.1	AF082181	Solanum melongena	CAB06427.1	Z84383	Dianthus caryophyllus
CAA78403.1	Z14028	Lycopersicon esculentum	CAB06429.1	Z84385	Dianthus caryophyllus
BAA08244.1	D45402	Zea mays	CAB06430.1	Z84386	Dianthus caryophyllus
CAA83673.1	Z32795	Glycine max	CAB11466.1	Z98758	Dianthus caryophyllus
CAB17077.1	Z99955	Phaseolus vulgaris	CAB06538.1	Z84571	Dianthus caryophyllus
CAB16316.1	Z99172	Vicia sativa	CAB06428.1	Z84384	Dianthus caryophyllus
CAB53397.1	AJ245868	Medicago sativa			
AAB62937.1	AF007215	Lavatera thuringiaca	SEQ ID NO. 1391		
BAA96501.1	AB032168	Nicotiana tabacum	AAK01360.1	AF314811	Brassica napus
CAA57675.1	X82185	Zea mays	CAB40834.1	AJ005686	Vitis vinifera
AAC49455.1	U41902	Pseudotsuga menziesii	AAC14481.1	U92286	Actinidia deliciosa
CAB17076.1	Z99954	Phaseolus vulgaris	AAB67875.1	U60267	Lycopersicon esculentum
AAD53011.1	AF089848	Brassica napus	CAA67069.1	X98421	Medicago sativa
CAA88629.1	Z48736	Lycopersicon esculentum	AAK01361.1	AF314812	Brassica napus
AAK27968.1	AF242372	Ipomoea batatas	BAA19916.1	D49714	Oryza sativa
AAB68374.1	U52970	Phaseolus vulgaris	AAC18862.1	AF067967	Mesembryanthemum crystallinum
			CAA67070.1	X98422	Medicago sativa





CAA53211.1	X75480	Eucalyptus gunnii	CAA61589.1	X89409	Lotus japonicus
AAK00680.1	AF229408	Brassica napus	CAA67889.1	X99552	Asparagus officinalis
CAA74070.1	Y13733	Zea mays	AAF74755.1	AF263432	Helianthus annuus
AAK00683.1	AF229411	Brassica rapa	AAD05035.1	AF014057	Triphysaria versicolor
CAA79625.1	Z19573	Medicago sativa	AAD05034.1	AF014056	Triphysaria versicolor
AAC35845.1	AF083332	Medicago sativa	AAD05033.1	AF014055	Triphysaria versicolor
CAA06687.1	AJ005702	Zea mays	CAA96526.1	Z72354	Vicia faba
CAA13177.1	AJ231135	Saccharum officinarum	CAA48141.1	X67958	Asparagus officinalis
BAA19487.1	D86590	Zinnia elegans	CAA61590.1	X89410	Lotus japonicus
BAA04046.1	D16624	Eucalyptus botryoides	CAA36429.1	X52179	Pisum sativum
AAD18000.1	AF109157	Eucalyptus globulus	BAA96252.1	AB035248	Astragalus sinicus
AAF23409.1	AF207552	Brassica napus	CAA36430.1	X52180	Pisum sativum
AAF23411.1	AF207554	Brassica oleracea	BAA96251.1	AB035247	Astragalus sinicus
AAF23412.1	AF207555	Brassica rapa	CAB57292.1	AJ133522	Phaseolus vulgaris
AAF23410.1	AF207553	Brassica napus	AAC49614.1	U77679	Glycine max
AAF23416.1	AF207559	Brassica rapa	BAA18951.1	D83378	Oryza sativa
AAF23415.1	AF207558	Brassica oleracea	AAAB03991.1	U55873	Oryza sativa
SEQ ID NO. 1412			AAF02776.1	AF190729	Helianthus annuus
AAK14395.1	AF339732	Dianthus caryophyllus	AAAB71532.1	AF005724	Sandersonia aurantiaca
BAB20580.1	AB042267	Zea mays	CAA58052.1	X82849	Zea mays
BAB20581.1	AB042268	Zea mays	AAAB91481.1	AF037363	Helianthus annuus
BAB20579.1	AB042261	Zea mays	CAA73762.1	Y13321	Pisum sativum
BAB17300.1	AB042260	Zea mays	CAA73763.1	Y13322	Pisum sativum
BAA82873.1	AB024291	Zea mays	BAA96452.1	AB021793	Pyrus pyrifolia
BAA85113.1	AB031012	Zea mays	AAAB73943.1	L23833	Glycine max
BAA75253.1	AB004882	Zea mays	SEQ ID NO. 1415		
BAA85112.1	AB031011	Zea mays	AAG21985.1	AF271636	Zea mays
BAB20582.1	AB042269	Zea mays	AAC18622.2	AF003551	Zea mays
BAB41137.1	AB060130	Zea mays	AAG28387.1	AF191667	Brassica oleracea
SEQ ID NO. 1414			AAG28386.1	AF191666	Brassica napus
BAB17726.1	AB050900	Raphanus sativus	AAAB97685.1	AF042184	Brassica napus
CAA59138.1	X84448	Brassica oleracea	AAG14462.1	AF293461	Brassica napus
AAC16325.1	AF061740	Elaeagnus umbellata	SEQ ID NO. 1417		
CAA08913.1	AJ009952	Phaseolus vulgaris	AAAB03379.1	U27108	Brassica napus
AAF02775.1	AF190728	Helianthus annuus	AAAB03378.1	U27107	Brassica napus
AAC49613.1	U77678	Glycine max	AAD42937.1	AF084971	Catharanthus roseus
AAAB1011.1	U89923	Medicago sativa	AAC49474.1	U41817	Phaseolus vulgaris
AAC09952.1	U55874	Glycine max	CAA11499.1	AJ223624	Spinacia oleracea
AAAB48058.1	L40327	Medicago sativa	CAA88492.1	Z48602	Nicotiana tabacum

AA049398.1	U46217	Petroselinum crispum	AAA32990.1	M87514	Brassica oleracea
CAA76555.1	Y16953	Sinapis alba	CAA50575.1	X71441	Nicotiana tabacum
CAA88493.1	Z48603	Nicotiana tabacum	CAA53366.1	X75670	Oryza sativa
CAA63073.1	X92102	Raphanus sativus	CAA04702.1	AJ001369	Olea europaea
CAA58772.1	X83920	Brassica napus	AAA62621.1	L22209	Cuscuta reflexa
AA000098.1	L01449	Glycine max	AAC49701.1	U79011	Borago officinalis
AA080169.1	U10270	Zea mays	CAA56318.1	X80008	Nicotiana tabacum
AA040291.1	U42208	Oryza sativa	CAA48240.1	X68140	Nicotiana tabacum
AAC49556.1	U04295	Oryza sativa	AA010774.1	AF098510	Petunia x hybrida
CAA58774.1	X83922	Brassica napus	AAF60299.1	AF233640	Petunia x hybrida
AA042938.1	AF084972	Catharanthus roseus	CAA11033.1	AJ222981	Physcomitrella patens
AA036514.1	U57389	Phaseolus vulgaris	SEQ ID NO. 1433		
CAC00656.1	AJ292743	Petroselinum crispum	BAA19675.1	D49486	Solidago canadensis
CAA71768.1	Y10809	Petroselinum crispum	CAA39819.1	X56435	Pisum sativum
CAA71770.1	Y10810	Petroselinum crispum	AAA33688.1	J04087	Pisum sativum
BAA02304.1	D12920	Triticum aestivum	BAA01088.1	D10244	Spinacia oleracea
CAA0101.1	X56781	Triticum aestivum	CAA32200.1	X14041	Lycopersicon esculentum
BAA07289.1	D38111	Triticum aestivum	AAA34195.1	M37151	Lycopersicon esculentum
AAA34293.1	M28704	Triticum aestivum	BAB21760.1	AB026724	Oryza sativa
AAK14790.1	AY027510	Catharanthus roseus	BAA12745.1	D85239	Oryza sativa
CAA58773.1	X83921	Brassica napus	AAA33728.1	M20792	Petunia x hybrida
CAA52897.1	X74943	Lycopersicon esculentum	AAB67990.1	U69536	Chloroplast Triticum aestivum
CAB62402.1	Y15165	Zea mays	AAB67991.1	U69632	Triticum aestivum
BAA10928.1	D64051	Triticum aestivum	AAC08582.1	AF054151	Zantedeschia aethiopica
CAA52896.1	X74942	Lycopersicon esculentum	CAA41455.1	X58579	Pinus sylvestris
AAA17488.1	U07933	Triticum aestivum	BAA24919.1	AB004870	Marchantia palcacea
CAA66477.1	X97903	Vicia faba	AAA33659.1	M63003	Pisum sativum
CAA52895.1	X74941	Lycopersicon esculentum	AAC25568.1	AF071112	Brassica rapa subsp. pekinensis
BAA02303.2	D12919	Triticum aestivum	AAB87572.1	AF034630	Panax ginseng
AAA68429.1	M63999	Triticum aestivum	CAA10160.1	AJ012739	Cicer arietinum
CAA67298.1	X98747	Hordeum vulgare	CAA10132.1	AJ012691	Cicer arietinum
AAA19103.1	U10466	Triticum aestivum	CAB57992.1	X17565	Zea mays
BAA36492.1	AB021736	Oryza sativa	CAA41454.1	X58578	Pinus sylvestris
BAA11431.1	D78609	Oryza sativa	AAB40394.1	U80069	Mesembryanthemum crystallinum
SEQ ID NO. 1425			CAA60826.1	X87372	Lycopersicon esculentum
CAA73333.1	Y12805	Nicotiana tabacum	AAB92612.1	AF037359	Paulownia kawakamii
CAA09420.1	AJ010943	Lycopersicon esculentum	AAA33917.1	L36320	Oryza sativa
SEQ ID NO. 1428			CAA73929.1	Y13610	Carica papaya
CAA04703.1	AJ001370	Olea europaea	CAA37866.1	X53872	Spinacia oleracea
			AAC14464.1	L19435	Oryza sativa

BAA00799.1	D00999	Oryza sativa	CAA60507.1	X86924	Vitis vinifera
AAK06837.1	AF328859	Avicennia marina	BAA08445.1	D49475	Zea mays
AAD01605.1	AF016893	Populus tremuloides	AAB51596.1	U93561	Zea mays
AAD05576.1	AF009735	Raphanus sativus	AAB51595.1	U93560	Zea mays
AAA33510.1	M54936	Zea mays	CAB94837.1	AJ277950	Nicotiana plumbaginifolia
CAA65043.1	X95728	Brassica juncea	CAA09478.1	AJ011096	Asparagus officinalis
AAC14465.1	L19434	Oryza sativa	CAB9601.2	U08293	Nicotiana plumbaginifolia
BAA00800.1	D01000	Oryza sativa	AAB39508.1	U48695	Lycopersicon esculentum
CAB60191.1	AJ250667	Ananas comosus	CAA09456.1	AJ011006	Asparagus officinalis
CAB39444.1	X55974	Nicotiana plumbaginifolia	CAA41635.1	X58831	Chlorella sorokiniana
AAD48484.1	AF170297	Manihot esculenta	CAA41636.1	X58832	Chlorella sorokiniana
AAC08581.1	AF054150	Zantedeschia aethiopica			
AAA34194.1	M37150	Lycopersicon esculentum	SEQ ID NO. 1438		
CAB32199.1	X14040	Lycopersicon esculentum	AAD26332.1	AF120148	Triticum aestivum
AAD01604.1	AF016892	Populus tremuloides	AAD26331.1	AF120147	Triticum aestivum
AAB49913.1	U34727	Zea mays	AAD26330.1	AF120146	Triticum aestivum
			AAB06756.2	U66307	Brassica napus
			AAA91164.1	U38920	Phaseolus vulgaris
SEQ ID NO. 1434			AAG01148.1	AF284065	Sesamum indicum
AAC36697.1	AF075579	Mesembryanthemum crystallinum	BAA84084.1	AB032073	Nicotiana paniculata
CAC10358.1	AJ277086	Nicotiana tabacum	BAA95788.1	AB009881	Nicotiana tabacum
AAF19804.1	AF180355	Brassica oleracea	AAB03687.1	U32511	Mesembryanthemum crystallinum
AAD17804.1	AF092431	Lotus japonicus	AAG40328.1	AF323175	Zea mays
CAC10359.1	AJ277087	Nicotiana tabacum	AAC15756.1	AF056326	Zea mays
CAC09575.1	AJ298987	Fagus sylvatica	AAK21969.1	AY028259	Avicennia marina
CAB72341.1	Y11607	Medicago sativa	CAA7751.1	Z11693	Spirodela polyrrhiza
AAC36698.1	AF075580	Mesembryanthemum crystallinum	BAB40956.1	AB059557	Avena sativa
AAD17805.1	AF092432	Lotus japonicus	AAC17133.1	AF056325	Hordeum vulgare
AAG43835.1	AF213455	Zea mays	BAA25729.1	AB012107	Oryza sativa
AAD11430.1	AF097667	Mesembryanthemum crystallinum	AAF97409.1	AY005128	Actinidia arguta
AAC36699.1	AF075581	Mesembryanthemum crystallinum	AAG14461.1	AF293460	Lycopersicon esculentum
AAC36700.1	AF075582	Mesembryanthemum crystallinum	AAK26439.1	AF357837	Solanum tuberosum
AAC35951.1	AF079355	Mesembryanthemum crystallinum			
CAB90634.1	AJ277744	Fagus sylvatica	SEQ ID NO. 1439		
AAB93832.1	U81960	Zea mays	BAB21545.1	AB042950	Nicotiana tabacum
AAC26828.1	AF075603	Oryza sativa	AAK01938.1	AY026321	Lupinus albus
CAC09576.1	AJ298988	Fagus sylvatica	BAA20522.1	AB004809	Catharanthus roseus
			AAF74025.1	AF156696	Nicotiana tabacum
			BAB21562.1	AB042951	Nicotiana tabacum
			BAB21563.1	AB042956	Nicotiana tabacum
SEQ ID NO. 1435			CAA67396.1	X98891	Solanum tuberosum
CAB9600.1	Y08292	Nicotiana plumbaginifolia			
CAB94836.1	AJ277949	Nicotiana plumbaginifolia			
CAC18730.1	AJ303070	Vitis vinifera			

CAC28218.1	AJ286743	Sesbania rostrata	CAA42529.2	X59872	Triticum aestivum
CAC28219.1	AJ286744	Sesbania rostrata	AAK29456.1	AF352253	Lens culinaris
AA81346.1	AF000354	Medicago truncatula	AA41006.1	AF107023	Triticum aestivum
AA81347.1	AF000355	Medicago truncatula	AA74723.1	L07946	Vulvox carteri
AA38859.1	AF156695	Solanum tuberosum	CAA12232.1	AJ224933	Lycopersicon esculentum
CAA67395.1	X98890	Solanum tuberosum	AAK29455.1	AF352252	Lens culinaris
AA82146.1	AF022873	Lycopersicon esculentum	AA41009.1	AF107027	Triticum aestivum
AA82147.1	AF022874	Lycopersicon esculentum	AAA50578.1	U03391	Lycopersicon esculentum
CAA74607.1	Y14214	Lycopersicon esculentum	AA41651.1	L29456	Nicotiana tabacum
AA42956.2	AF239619	Oryza sativa	AAA50303.1	L34578	Pisum sativum
AA26146.1	AF110180	Triticum aestivum	AA98452.1	U16726	Chlamydomonas reinhardtii
AA76345.1	AF271893	Oryza sativa	CAA29123.1	X05636	Pisum sativum
AAK06857.1	AF337531	Oryza rufipogon	AA27930.1	AF222804	Euphorbia esula
AAK25766.1	AF335588	Oryza sativa	CAA07233.1	AJ006767	Cicer arietinum
AA40188.1	AF229169	Oryza sativa	BAA87331.1	AB012694	Lilium longiflorum
AA43998.1	AF215837	Apium graveolens var. dulce	BAA8671.1	AB029614	Nicotiana tabacum
CAA68813.1	Y07520	Chlorella kessleri	CAA73171.1	Y12599	Apium graveolens
CAA39036.1	X55349	Chlorella kessleri	AA86857.1	AF031547	Fritillaria agrestis
CAA53192.1	X75440	Chlorella kessleri			
SEQ ID NO. 1440			SEQ ID NO. 1444		
AAC49815.1	U87257	Daucus carota	AA62181.1	U95953	Zea mays
CAA04245.1	AJ000693	Hordeum vulgare	AAK00632.1	AF224672	Persea americana
			BAB11932.1	AB030293	Vigna unguiculata
			AA26356.1	AF190462	Phaseolus vulgaris
SEQ ID NO. 1441			SEQ ID NO. 1445		
AAF64525.1	AF253416	Lycopersicon chilense	BAA81762.1	AP000364	Oryza sativa
CAA77867.1	Z11842	Lycopersicon esculentum			
AB03076.1	U01890	Lycopersicon pennellii			
AA41007.1	AF107024	Triticum aestivum	SEQ ID NO. 1446		
AAK29452.1	AF352249	Lathyrus sativus	BAA21922.1	AB006600	Petunia x hybrida
AAK29453.1	AF352250	Lathyrus sativus	BAA21923.1	AB006601	Petunia x hybrida
AA34246.1	L07947	Vulvox carteri	BAA21921.1	AB006599	Petunia x hybrida
BAA25203.1	D87064	Triticum aestivum	BAA19110.1	AB000451	Petunia x hybrida
AAK29450.1	AF352247	Pisum sativum	BAA21925.1	AB006603	Petunia x hybrida
AAK29451.1	AF352248	Pisum sativum	BAA21926.1	AB006604	Petunia x hybrida
CAA40362.1	X57077	Zea mays	BAA21924.1	AB006602	Petunia x hybrida
AAK29449.1	AF352246	Pisum sativum	BAA19111.1	AB000452	Petunia x hybrida
AA41008.1	AF107026	Triticum aestivum	BAA05077.1	D26084	Petunia x hybrida
BAA25204.1	D87065	Triticum aestivum	AA26942.1	AF119050	Datisca glomerata
AAK29454.1	AF352251	Lens culinaris	BAA05076.1	D26083	Petunia x hybrida
AA41005.1	AF107022	Triticum aestivum	AAC06243.1	AF053077	Nicotiana tabacum

BAA21927.1	AB006605	Petunia x hybrida	CAA66037.1	X97351	Populus balsamifera subsp
BAA96071.1	AB035133	Petunia x hybrida	trichocarpa		
BAA21920.1	AB006598	Petunia x hybrida	BAA07241.1	D38051	Populus kitakamiensis
AAB53261.1	U76555	Brassica rapa	AAB47602.1	L07554	Linum usitatissimum
AAB53260.1	U76554	Brassica rapa	BAA06334.1	D30652	Populus kitakamiensis
AAK01713.1	AF332876	Oryza sativa	AAC98519.1	AF007211	Glycine max
BAA05079.1	D26086	Petunia x hybrida	AAB97734.1	AF014502	Glycine max
BAA96070.1	AB035132	Petunia x hybrida	BAA06335.1	D30653	Populus kitakamiensis
BAA21919.1	AB006597	Petunia x hybrida	AAD37427.1	AF149277	Phaseolus vulgaris
BAA05078.1	D26085	Petunia x hybrida	CAA62226.1	X90693	Medicago sativa
BAA19112.1	AB000453	Petunia x hybrida	CAA62227.1	X90694	Medicago sativa
BAA19114.1	AB000455	Petunia x hybrida	AAB41811.1	L36157	Medicago sativa
BAA21928.1	AB006606	Petunia x hybrida	CAA62225.1	X90692	Medicago sativa
BAA19926.1	AB000456	Petunia x hybrida	AAB41810.1	L36156	Medicago sativa
SEQ ID NO. 1453			AAD37430.1	AF149280	Phaseolus vulgaris
AAF75791.1	AF271892	Pisum sativum	CAB94692.1	AJ242742	Ipomoea batatas
BAA03763.1	D16247	Nicotiana sylvestris	AAA34108.1	J02979	Nicotiana tabacum
AAF40306.1	AF156667	Vigna radiata	CAA40796.1	X57564	Armoracia rusticana
CAA68193.1	X99837	Spinacia oleracea	BAA01877.1	D11102	Populus kitakamiensis
AAD20980.1	AF079782	Zea mays	BAA01992.1	D11396	Nicotiana tabacum
SEQ ID NO. 1454			CAB67121.1	Y19023	Lycopersicon esculentum
BAA92155.1	AB007818	Citrus unshiu	CAA50597.1	X71593	Lycopersicon esculentum
AAF28386.1	AF151215	Nicotiana glauca	AAD43561.1	AF155124	Gossypium hirsutum
CAA22230.1	X14067	Chenopodium rubrum	BAA92500.1	AP001383	Oryza sativa
AAB84194.1	AF029243	Pisum sativum	AAF63027.1	AF244924	Spinacia oleracea
BAB16425.1	AB041513	Nicotiana tabacum	AAB02554.1	L37790	Stylosanthes humilis
AAB02879.1	M37152	Nicotiana tabacum	AAB06183.1	M37636	Arachis hypogaea
SEQ ID NO. 1457			CAA59487.1	X85230	Triticum aestivum
BAA14143.1	D90115	Armoracia rusticana	BAA94962.1	AB042103	Asparagus officinalis
BAA14144.1	D90116	Armoracia rusticana	AAF63026.1	AF244923	Spinacia oleracea
BAA11853.1	D83225	Populus nigra	CAB99487.1	AJ276227	Hordeum vulgare
CAA66035.1	X97349	Populus balsamifera subsp.	CAA71492.1	Y10466	Spinacia oleracea
trichocarpa			CAB65334.1	AJ250121	Picea abies
CAA66036.1	X97350	Populus balsamifera subsp.	AAA33121.1	M32742	Cucumis sativus
trichocarpa			CAA39486.1	X56011	Triticum aestivum
BAA11852.1	D83224	Populus nigra	BAA92422.1	AP001366	Oryza sativa
CAA66034.1	X97348	Populus balsamifera subsp.	BAA92497.1	AP001383	Oryza sativa
trichocarpa			CAA59485.1	X85228	Triticum aestivum
			CAA76680.1	Y17192	Cucurbita pepo

SEQ ID NO. 1458

AAA32676.1	M37637	Arachis hypogaea	CAA66036.1	X97350	Populus balsamifera subsp
CAA64413.1	X94943	Lycopersicon esculentum	trichocarpa		
BAA82307.1	AB027753	Nicotiana tabacum	BAA14143.1	D90115	Armoracia rusticana
AAB67737.1	L77080	Stylosanthes humilis	AAD37427.1	AF149277	Phaseolus vulgaris
AAD37429.2	AF149279	Phaseolus vulgaris	CAA59485.1	X85228	Triticum aestivum
CAA71494.1	Y10468	Spinacia oleracea	CAB65334.1	AJ250121	Picea abies
AAD37375.1	AF145349	Glycine max	AAB47602.1	L07554	Linum usitatissimum
BAA03644.1	D14997	Oryza sativa	AAB41811.1	L36157	Medicago sativa
AAD11482.1	U51192	Glycine max	AAC49820.1	AF014469	Oryza sativa
AAD11481.1	U51191	Glycine max			
BAA07663.1	D42064	Nicotiana tabacum	SEQ ID NO. 1459		
AAA65637.1	L13654	Lycopersicon esculentum	BAA11394.1	D78498	Brassica rapa
BAA94962.1	AB042103	Asparagus officinalis	BAA11388.1	D78491	Brassica rapa
AAA65636.1	L13653	Lycopersicon esculentum	CRA71803.1	Y10850	Brassica juncea
CAA80502.1	Z22920	Spirodela polyrrhiza	AAA74958.1	L31940	Brassica rapa
AAF63024.1	AF244921	Spinacia oleracea	BAA11391.1	D78494	Brassica rapa
BAA07664.1	D42065	Nicotiana tabacum	AAF70556.1	AF200712	Brassica oleracea
BAA11853.1	D83225	Populus nigra	CAA71805.1	Y10852	Brassica juncea
BAA92500.1	AP001383	Oryza sativa	CAA71802.1	Y10849	Brassica juncea
CAA66034.1	X97348	Populus balsamifera subsp.	CAA71806.1	Y10853	Brassica juncea
trichocarpa			CAA71804.1	Y10851	Brassica juncea
CAA76374.2	Y16776	Spinacia oleracea	AAC27531.1	AF078912	Mesembryanthemum crystallinum
AAF63027.1	AF244924	Spinacia oleracea	AAB61212.1	AF000935	Mesembryanthemum crystallinum
CAA40796.1	X57564	Armoracia rusticana	AAA19611.1	U11423	Coffea arabica
CAA62226.1	X90693	Medicago sativa	CAA65009.1	X95709	Cicer arietinum
CAA71489.1	Y10463	Spinacia oleracea	CAA92243.1	Z68138	Lycopersicon esculentum
AAF63026.1	AF244923	Spinacia oleracea	CAA10232.1	AJ130886	Fagus sylvatica
CAA50597.1	X71593	Lycopersicon esculentum	AAA53074.1	L27813	Actinidia deliciosa
CAB67121.1	Y19023	Lycopersicon esculentum	AAG50080.1	AF333385	Avicennia marina
CAA66035.1	X97349	Populus balsamifera subsp.	CAA54471.1	X77254	Vicia faba
trichocarpa			AAK28022.1	AF279655	Typha latifolia
BAA14144.1	D90116	Armoracia rusticana	CAC12823.1	AJ299253	Nicotiana tabacum
BAA07241.1	D38051	Populus kitakamiensis	CAB77242.1	AJ133145	Persea americana
CAA62615.1	X91232	Mercurialis annua	CAB53392.1	AJ247196	Eichhornia crassipes
CAC21393.1	AJ401276	Zea mays	CAB53390.1	AJ247090	Eichhornia crassipes
BAA06334.1	D30652	Populus kitakamiensis	AAK11269.1	AF334141	Avicennia marina
AAD43561.1	AF155124	Gossypium hirsutum	AAG61122.1	AF329968	Avicennia marina
AAC98519.1	AF007211	Glycine max	AAG44757.1	AF268391	Musa acuminata
CAA66037.1	X97351	Populus balsamifera subsp.	CAB53391.1	AJ247195	Eichhornia crassipes
trichocarpa			AAC49627.1	U43530	Oryza sativa
AAB97734.1	AF014502	Glycine max	BAA14038.1	D89931	Oryza sativa

AA870560.1	AF017787	Oenanthe javanica	AAF01694.1	AF181456	Hordeum vulgare
CAA92652.1	Z68310	Lycopersicon esculentum	AAD50291.1	AF172263	Prunus dulcis
AAC72984.1	AF101825	Silene vulgaris	CAA33364.1	X15290	Zea mays
AA805223.1	U46543	Nicotiana glutinosa	CAA44789.1	X63063	Pisum sativum
CAB56620.1	AJ243532	Prunus persica	CAA44787.1	X63061	Pisum sativum
AA88276.1	U97494	Prunus armeniaca	AA851381.1	U91970	Pisum sativum
BAA96444.1	AB021785	Pyrus pyrifolia	AAF01695.1	AF181457	Hordeum vulgare
AAC62510.1	AF093585	Pimpinella brachycarpa	CAA44788.1	X63062	Pisum sativum
AA804674.1	L77963	Lycopersicon esculentum	AAC49618.1	U26423	Lycopersicon esculentum
CAA92651.1	Z68309	Lycopersicon esculentum	AA805927.1	U63831	Sorghum bicolor
BAA31561.1	AB008100	Citrus unshiu	CAA33362.1	X15288	Hordeum vulgare
			AAD02253.1	AF043087	Hordeum vulgare
			AAF01689.1	AF181451	Hordeum vulgare
			AAC05922.1	AF031248	Lophopyrum elongatum
SEQ ID NO. 1461			AA871225.1	AF004807	Glycine max
AA853099.1	U68217	Brassica napus	CAA33360.1	X15286	Hordeum vulgare
AAA33959.1	M64337	Glycine max	CAA55194.1	X78431	Triticum turgidum subsp. durum
AAA34016.1	M72894	Glycine max	AA860172.1	AF236067	Elaeis guineensis
CAA65771.1	X97059	Medicago sativa	CAA66970.1	X98326	Hordeum vulgare
AA818928.1	U31648	Glycine max	CAA55192.1	X78429	Triticum turgidum subsp. durum
AAC06026.1	AF052057	Vigna unguiculata	AAD02255.1	AF043089	Hordeum vulgare
AAC06027.1	AF052058	Vigna unguiculata	AA801691.1	AF181453	Hordeum vulgare
CAA41213.1	X58274	Phaseolus vulgaris	AAD02254.1	AF043088	Hordeum vulgare
AAD50644.1	AF133814	Solanum tuberosum	AA801690.1	AF181452	Hordeum vulgare
CAA51786.1	X73369	Pisum sativum	CAA33363.1	X15289	Hordeum vulgare
CAA45763.1	X64417	Pisum sativum	CAA50499.1	X71362	Hordeum vulgare
CAA43663.1	X61391	Zea mays	AA851380.1	U91969	Pisum sativum
CAA58146.1	X83076	Zea mays			
CAA58147.1	X83077	Zea mays	SEQ ID NO. 1463		Nicotiana tabacum
CAA43664.1	X61392	Zea mays	CAA64636.1	X95343	
AAA33958.1	M58336	Glycine max			
AAC15241.1	AF028072	Pinus taeda	SEQ ID NO. 1464		Oryza sativa
CAA47982.1	X67754	Vigna unguiculata	CAA48706.1	X68807	
CAA47984.1	X67756	Vigna unguiculata			
CAA47983.1	X67755	Vigna unguiculata	SEQ ID NO. 1465		Lycopersicon esculentum
AAC12282.1	AF052511	Glycine max	AAC63057.1	U70076	Glycine max
AAC12281.1	AF052513	Glycine max	AA823482.1	S45035	Glycine max
			BAA82254.1	AB029441	Glycine max
SEQ ID NO. 1462			AA823483.1	S45035	Glycine max
CAA09421.1	AJ010944	Helianthus annuus	CAA45778.1	X64448	Glycine max
CAA05713.1	AJ002741	Helianthus annuus	CAA56343.1	X80039	Glycine max
CAA63339.1	X92647	Helianthus annuus			
AAD02257.1	AF043091	Hordeum vulgare			





AAE23464.1	S45092	Glycine max	AAE27340.1	AF186020	Vicia faba
BAA03084.1	D13974	Psophocarpus tetragonolobus	CAA81443.1	Z26846	Mesembryanthemum crystalli
CAA45777.1	X64447	Glycine max	CAA82993.1	Z30332	Spinacia oleracea
AAC60535.1	S96732	Psophocarpus tetragonolobus	AAA34002.1	M67449	Glycine max
AAC60537.1	S96735	Psophocarpus tetragonolobus	BAA96628.1	AP002482	Oryza sativa
AAC60536.1	S96733	Psophocarpus tetragonolobus	BAA83689.1	AB011968	Oryza sativa
AAK20289.1	AF314823	Glycine max	SEQ ID NO. 1467		
CAA44005.1	X62095	Solanum tuberosum	AAG34803.1	AF243368	Glycine max
AAB68964.1	U18995	Brassica oleracea	AAF64450.1	AF239928	Euphorbia esula
AAB23733.1	S46970	Psophocarpus tetragonolobus	AAG34798.1	AF243363	Glycine max
BAA04151.1	D17331	Solanum tuberosum	AAG34796.1	AF243361	Glycine max
BAA04148.1	D17328	Solanum tuberosum	AAG34797.1	AF243362	Glycine max
AAI18564.1	M96257	Solanum tuberosum	AAG34809.1	AF243374	Glycine max
AAC49602.1	U30814	Solanum tuberosum	AAG34801.1	AF243366	Glycine max
CAA52919.1	X74985	Solanum tuberosum	AAG34807.1	AF243372	Glycine max
CAA39860.1	X56509	Theobroma cacao	AAG34804.1	AF243369	Glycine max
CAA45723.1	X64370	Solanum tuberosum	AAG34810.1	AF243375	Glycine max
SEQ ID NO. 1466			AAG34802.1	AF243367	Glycine max
CAA04261.2	AJ000728	Lycopersicon esculentum	AAG34808.1	AF243373	Glycine max
AAF67262.1	AF165186	Nicotiana tabacum	AAG34836.1	AF244693	Zea mays
AAC83393.1	U83625	Zea mays	AAG34844.1	AF244701	Zea mays
CAC24705.1	AJ302651	Nicotiana tabacum	AAA68430.1	J03679	Solanum tuberosum
AAG40578.1	AF216314	Oryza sativa	AAC18566.1	AF048978	Glycine max
BAA06731.1	D31964	Nicotiana tabacum	AAG34805.1	AF243370	Glycine max
AAG53979.1	AF325168	Nicotiana tabacum	AAG34800.1	AF243365	Glycine max
BAA05648.1	D26601	Nicotiana tabacum	CAA09187.1	AJ010448	Alopecurus myosuroides
AAF34436.1	AF172282	Oryza sativa	CAA71784.1	Y10820	Glycine max
CAA08995.1	AJ010091	Brassica napus	AAG34831.1	AF244688	Zea mays
CAA65244.1	X95997	Solanum tuberosum	CAA09188.1	AJ010449	Alopecurus myosuroides
CAA08997.1	AJ010093	Brassica napus	AAG34837.1	AF244694	Zea mays
CAA57898.1	X82548	Hordeum vulgare	AAG34832.1	AF244689	Zea mays
CAA46556.1	X65606	Hordeum vulgare	AAG34829.1	AF244686	Zea mays
AAC99329.1	AF062479	Oryza sativa	AAG34833.1	AF244690	Zea mays
CAA71142.1	Y10036	Cucumis sativus	CAA04391.1	AJ000923	Carica papaya
CAA07813.1	AJ007990	Hordeum vulgare	AAF29773.1	AF159229	Gossypium hirsutum
BAA05649.1	D26602	Nicotiana tabacum	AAG34795.1	AF243360	Glycine max
AAF19401.1	AF203479	Glycine max	AAG34841.1	AF244698	Zea mays
AAD23582.1	AF128443	Glycine max	AAG34849.1	AF244706	Zea mays
CAA46554.1	X65604	Hordeum vulgare	AAG34838.1	AF244695	Zea mays
AAB05457.1	U55768	Oryza sativa	AAC32118.1	AF051214	Picea mariana

[illegible]

AAF73236.1	AAF73236.1	Pisum sativum	CAB41490.1	AJ238439	Cicer arietinum
CAA57721.1	X82270	Medicago sativa	CAA10067.1	AJ012581	Cicer arietinum
BAA74734.1	AB016802	Zea mays	CAA04117.1	AJ000478	Helianthus tuberosus
CAA56314.1	X79993	Avena sativa	CAA04116.1	AJ000477	Helianthus tuberosus
AAC28850.1	AF079318	Triticum aestivum	AAG09208.1	AF175278	Pisum sativum
AAK01710.1	AF332873	Oryza sativa	AAC49188.2	U29333	Pisum sativum
AAG40579.1	AF216315	Oryza sativa	CAA65580.1	X96784	Nicotiana tabacum
CAC13967.1	AJ250311	Oryza sativa	BAA92894.1	AB006790	Petunia x hybrida
BAA74733.1	AB016801	Zea mays	AAG44132.1	AF218296	Pisum sativum
AAD28617.1	AF129087	Medicago sativa	CAA64635.1	X95342	Nicotiana tabacum
AAF23902.1	AF194415	Oryza sativa	AAD56282.1	AF155332	Petunia x hybrida
AAD52659.1	AF177392	Oryza sativa	BAA12159.1	D83968	Glycine max
AAF23903.1	AF194416	Oryza sativa	AAA32913.1	M32885	Persea americana
AAA92823.1	U18365	Brassica napus	CAA70575.1	Y09423	Nepeta racemosa
AAB57843.1	U96716	Selaginella lepidophylla	AAB94587.1	AF022458	Glycine max
CAB61750.1	AJ275316	Cicer arietinum	AAC39454.1	AF014802	Eschscholzia californica
CAA71242.1	Y10160	Chenopodium rubrum	CAA70576.1	Y09424	Nepeta racemosa
BAA33152.1	AB008187	Pisum sativum	AAB94590.1	AF022461	Glycine max
AAG01534.1	AF289467	Nicotiana tabacum	BAB40323.1	AB037244	Asparagus officinalis
CAA66233.1	X97637	Antirrhinum majus	BAB40324.1	AB037245	Asparagus officinalis
SEQ ID NO. 1472			AAA19701.1	I24438	Thlaspi arvense
CAA56175.1	X79779	Solanum tuberosum	BAA84071.1	AB028151	Antirrhinum majus
BAA96150.1	AP002092	Oryza sativa	BAA13076.1	D86351	Glycine max
BAA96192.1	AP002093	Oryza sativa	AAD38930.1	AF135485	Glycine max
CAB62555.1	AJ249962	Daucus carota	AAC32274.1	AF081575	Petunia x hybrida
AAF81251.1	AF267755	Mesembryanthemum crystallinum	SEQ ID NO. 1479		
CAA70896.1	Y09749	Vicia faba	AAC36318.1	AF053127	Malus x domestica
CAA70894.1	Y09747	Zea mays	AAF91324.1	AF244890	Glycine max
CAA70895.1	Y09748	Hordeum vulgare	AAF91323.1	AF244889	Glycine max
CAA70900.1	Y09753	Secale cereale	CAA61510.1	X89226	Oryza sativa
CAA70899.1	Y09752	Secale cereale	AAF59906.1	AF197947	Glycine max
AAF33670.1	AF079872	Nicotiana tabacum	AAF59905.1	AF197946	Glycine max
CAA70897.1	Y09750	Plantago major	AAF91322.1	AF244888	Glycine max
AAF33669.1	AF079871	Nicotiana tabacum	CAC20842.1	AJ250467	Pinus sylvestris
SEQ ID NO. 1473			AAB36558.1	U77888	Ipomoea nil
CAB43505.1	AJ239051	Cicer arietinum	BAA83373.1	AP000391	Oryza sativa
BAA22422.1	AB001379	Glycyrrhiza echinata	BAA84787.1	AP000559	Oryza sativa
BAA93634.1	AB025016	Lotus japonicus	AAF34426.1	AF172282	Oryza sativa
BAA74465.1	AB022732	Glycyrrhiza echinata	AAC80225.1	U72723	Oryza longistaminata
			AAC49123.1	U37133	Oryza sativa

AAB82755.1	U72725	Oryza longistaminata	SEQ ID NO. 1481	Malus x domestica
AAG52992.1	U77888	Ipomoea nil	AAK25768.1	AF336307
AAB82756.1	U72724	Oryza sativa	AAA73872.1	L44142
AAB82753.1	U72726	Oryza longistaminata	CAA36676.1	X52429
BAA88636.1	AB029327	Nicotiana tabacum	AAG33924.1	AY009094
AAG52994.1	U77888	Ipomoea nil	AAB84193.1	AF029242
			AAC62104.1	AF091513
SEQ ID NO. 1480			SEQ ID NO. 1482	
AAD21872.1	AF078082	Phaseolus vulgaris	CAA07563.1	AJ007574
AAC23542.1	U20948	Ipomoea trifida	CAA10608.1	AJ132228
CAA73134.1	Y12531	Brassica oleracea	CAA70778.1	Y09591
CAA74662.1	Y14286	Brassica oleracea	AAD16014.1	AF080543
CAA67145.1	X98520	Brassica oleracea	CAA70969.1	Y09826
CAA73133.1	Y12530	Brassica oleracea	AAD16015.1	AF080544
AAB93834.1	U82481	Zea mays	CAA70968.1	Y09825
AAA33008.1	M97667	Brassica napus	CAA92992.1	Z68759
CAB89179.1	AJ245479	Brassica napus subsp. napus	AAD16013.1	AF080542
AAA33000.1	M76647	Brassica oleracea	AAF15945.1	AF061435
CAA74661.1	Y14285	Brassica oleracea	CAA72006.1	Y11121
BAA23676.1	AB000970	Brassica rapa	AAF15944.1	AF061434
CAB41878.1	Y18259	Brassica oleracea	AAF15946.1	AF061436
CAB41879.1	Y18260	Brassica oleracea	AAB48944.1	U31932
AAA62232.1	U00443	Brassica napus	AAB96830.1	U64823
CAA79355.1	Z18921	Brassica oleracea	AAD25162.1	AF014810
BAA07576.1	D38563	Brassica rapa	BAA93437.1	AB022783
BAA92837.1	AB032474	Brassica oleracea	AAD25161.1	AF014809
BAA92836.1	AB032473	Brassica oleracea	AAD25160.1	AF014808
BAB21001.1	AB054061	Brassica rapa	AAF76897.1	AF274032
BAA07577.2	D38564	Brassica rapa	CAB42599.1	AJ238635
BAA06285.1	D30049	Brassica rapa	SEQ ID NO. 1484	
BAA21132.1	D88193	Brassica rapa	AAG13408.1	AF297472
AAD52097.1	AF088885	Nicotiana tabacum	AAG13407.1	AF297471
BAA94509.1	AB041503	Populus nigra	AAA32993.1	M81224
BAA94510.1	AB041504	Populus nigra	AAA33011.1	L21896
AAC27489.1	AF077130	Oryza sativa	CAA08862.1	Z24737
AAB61708.1	U93048	Daucus carota	CAB39890.1	AJ237582
AAF78016.1	AF238472	Oryza sativa	CAA10234.1	AJ130888
AAC02535.1	AF044260	Oryza sativa	SEQ ID NO. 1485	
AAC49629.1	U51330	Triticum aestivum		
AAA33915.1	L27821	Oryza sativa		

BAA76745.1	D89972	Vigna mungo	AAG36774.1	AF210616	Zea mays
CAB64544.1	AV131718	Zea mays	CAA75509.1	Y15219	Oryza sativa subsp. indica
BAA76744.1	D89971	Vigna mungo			
CAB64545.1	AJ131719	Zea mays	SEQ ID NO. 1489		
BAA04225.1	D17401	Ricinus communis	BAA08094.1	D45066	Cucurbita maxima
CAB16318.1	Z99174	Vicia narbonensis	BAA88190.1	AP000836	Oryza sativa
CAA07639.1	AJ007743	Vicia sativa	CAA46875.1	X66076	Zea mays
CAB51545.1	AJ243876	Lycopersicon esculentum	AAB70119.1	U82230	Zea mays
			CAA09976.1	AJ012284	Triticum aestivum
SEQ ID NO. 1486			CAA04440.1	AJ000991	Hordeum vulgare
CAA45701.1	X64349	Nicotiana tabacum	CAB89831.1	AJ242853	Solanum tuberosum
CRA78043.1	Z11999	Lycopersicon esculentum	CAA66604.1	X97945	Nicotiana tabacum
CAA35601.1	X17578	Solanum tuberosum	BAA78574.1	AB028131	Oryza sativa
BAA96365.2	AB043960	Bruguiera gymnorhiza			
AAC04808.1	AF037457	Fritillaria agrestis	SEQ ID NO. 1490		
BAA02554.1	D13297	Pisum sativum	CAC10555.1	AJ279059	Lotus japonicus
CRA40670.1	X57408	Triticum aestivum	CAA64475.1	X95098	Lycopersicon esculentum
AAD38521.1	AF139818	Brassica napus	AAG28780.1	AF306518	Brassica napus
AAD55562.1	AF110780	Volvox carterii f. nagariensis	AAG11397.1	AF118858	Lycopersicon esculentum
CRA36674.1	X52427	Lycopersicon esculentum	AAD16012.1	AF080541	Nepenthes alata
			AAF01774.1	AF188744	Brassica napus
SEQ ID NO. 1487					
CRA71238.1	Y10156	Brassica napus	SEQ ID NO. 1491		
CAV71237.1	Y10155	Brassica napus	AAD02462.1	AF047490	Zea mays
CAB62165.1	AJ223307	Brassica napus	AAG10425.1	AF251013	Tagetes erecta
AAC49181.1	U39289	Brassica napus	CAA12062.1	AJ224683	Narcissus pseudonarcissus
AAC49182.1	U39319	Brassica napus	AAF13698.1	AF195507	Lycopersicon esculentum
			CAA61985.1	X89897	Capsicum annuum
SEQ ID NO. 1488			AAG14399.1	AF054629	Oryza sativa
CRA64615.1	X95297	Lycopersicon esculentum	CAA55392.1	X78815	Narcissus pseudonarcissus
CRA67600.1	X99210	Lycopersicon esculentum	CAA42573.1	X59948	Lycopersicon esculentum
CAB43399.1	AJ006292	Antirrhinum majus	AAA68865.1	M88683	Lycopersicon esculentum
CRA78386.1	Z13996	Petunia x hybrida	CAA55078.1	X78271	Lycopersicon esculentum
AAF22256.1	AF161711	Pimpinella brachycarpa	CAB59726.1	X71023	Lycopersicon esculentum
CRA64614.1	X95296	Lycopersicon esculentum	AAG10645.1	AF086803	Oryza sativa subsp. japonica
BAA88224.1	AB028652	Nicotiana tabacum	AAG10426.1	AF251014	Tagetes erecta
CAA78387.1	Z13997	Petunia x hybrida	BAB08179.1	AB046992	Citrus unshiu
BAA88221.1	AB028649	Nicotiana tabacum	AAA99519.1	L39266	Zea mays
BAA88222.1	AB028650	Nicotiana tabacum	CAA48195.1	X68058	Capsicum annuum
CAA66952.1	X98308	Lycopersicon esculentum	AAC12846.1	U37285	Zea mays
AAA33500.1	M73028	Zea mays	CAA75094.1	Y14807	Dunaliella bardawil

AA02489.1	AF049356	Oryza sativa	AAF59905.1	AF197946	Glycine max
CAA60479.1	X86783	Haematococcus pluvialis	BAA06538.1	D31737	Nicotiana tabacum
SEQ ID NO. 1492			BAA94509.1	AB041503	Populus nigra
CAC05338.1	AJ293028	Brassica napus	AAF91322.1	AF244888	Glycine max
CAA69387.1	Y08210	Nicotiana plumbaginifolia	AAK11566.1	AF318490	Lycopersicon hirsutum
BAA33382.1	AB008519	Oryza sativa	AAB09771.1	U67422	Zea mays
AAK19519.1	AF332214	Triticum aestivum	AAC36318.1	AF053127	Malus x domestica
AAC49531.1	U34198	Hordeum vulgare	AAB47421.1	U59316	Lycopersicon esculentum
AAG01172.1	AF288688	Triticum aestivum	AAF76313.1	AF220603	Lycopersicon esculentum
AAC49532.1	U34290	Hordeum vulgare	AAK11569.1	AF318493	Lycopersicon hirsutum
AAK02066.1	AY026523	Chlorella sorokiniana	BAA94510.1	AB041504	Populus nigra
CAA80925.1	Z25438	Chlamydomonas reinhardtii	AAK11674.1	AF339747	Lophopyrum elongatum
AAD38794.1	AF153602	Triticum aestivum	AAF43496.1	AF131222	Lophopyrum elongatum
CAA80926.1	Z25439	Chlamydomonas reinhardtii	AAF34428.1	AF172282	Oryza sativa
CAA11238.1	AJ223296	Chlamydomonas reinhardtii	AAK11567.1	AF318491	Lycopersicon hirsutum
SEQ ID NO. 1493			AAB47423.1	U59315	Lycopersicon pimpinellifolium
AAC16403.1	U82810	Glycine max	AAC48914.1	U02271	Lycopersicon pimpinellifolium
CAA63338.1	X92646	Helianthus annuus	AAF76306.1	AF220602	Lycopersicon pimpinellifolium
BAA76309.1	AB019617	Triticum aestivum	AAK16628.1	AY007545	Brassica napus
AAK70536.1	AF017356	Oryza sativa	SEQ ID NO. 1497		
CAA79273.1	Z18809	Onoclea sensibilis	AAK21872.1	AF078082	Phaseolus vulgaris
SEQ ID NO. 1494			AAC23542.1	U20948	Ipomoea trifida
CAA67291.1	X98739	Pisum sativum	CAA73134.1	Y12531	Brassica oleracea
CAA67290.1	X98738	Pisum sativum	AAB93834.1	U82481	Zea mays
SEQ ID NO. 1496			CAA74662.1	Y14286	Brassica oleracea
AAG00510.1	AF285172	Phaseolus vulgaris	BAA23676.1	AB000970	Brassica rapa
BAA84787.1	AP000559	Oryza sativa	CAA73133.1	Y12530	Brassica oleracea
BAA83373.1	AP000391	Oryza sativa	CAA67145.1	X98520	Brassica oleracea
CAA97692.1	Z73295	Catharanthus roseus	CAA74661.1	Y14285	Brassica oleracea
AAK21965.1	AY028699	Brassica napus	CAB41879.1	Y18260	Brassica oleracea
CAB51834.1	00069	Oryza sativa	CAB41878.1	Y18259	Brassica oleracea
AAB61708.1	U93048	Daucus carota	AAK33000.1	M76647	Brassica oleracea
CAA61510.1	X89226	Oryza sativa	CAB89179.1	AJ245479	Brassica napus subsp. napus
BAA78764.1	AB023482	Oryza sativa	AAK33008.1	M97667	Brassica napus
AAF59906.1	AF197947	Glycine max	BAA92836.1	AB032473	Brassica oleracea
AAF91324.1	AF244890	Glycine max	BAA07576.1	D38563	Brassica rapa
AAF91323.1	AF244889	Glycine max	AAK62232.1	U00443	Brassica napus
			BAA92837.1	AB032474	Brassica oleracea
			BAB21001.1	AB054061	Brassica rapa
			BAA07577.2	D38564	Brassica rapa

Z18921	CAR79355.1	Brassica oleracea
D30049	BAA06285.1	Brassica rapa
D88193	BAA21132.1	Brassica rapa
AF088885	AAD52097.1	Nicotiana tabacum
AY028699	AAK21965.1	Brassica napus
AY007545	AGI16628.1	Brassica napus
AB041503	BAA94509.1	Populus nigra
AB041504	BAA94510.1	Populus nigra
AC073405	AAG03090.1	Oryza sativa
SEQ ID NO.	1498	
Y16776	CAR76374.2	Spinacia oleracea
U51191	AAD11481.1	Glycine max
U51192	AAD11482.1	Glycine max
L13654	AAA65637.1	Lycopersicon esculentum
D14997	BAA03644.1	Oryza sativa
Z22920	CAR80502.1	Spirodela polyrrhiza
L13653	AAA65636.1	Lycopersicon esculentum
D42065	BAA07664.1	Nicotiana tabacum
M37637	AAA32676.1	Arachis hypogaea
D42064	BAA07663.1	Nicotiana tabacum
L77080	AAB67737.1	Stylosanthes humilis
X94943	CAR64413.1	Lycopersicon esculentum
AB027753	BAA82307.1	Nicotiana tabacum
U51194	AAD11484.1	Glycine max
AB024437	BAA77387.1	Scutellaria baicalensis
AF145349	AAD37375.1	Glycine max
AJ750121	CAB65334.1	Picea abies
AB027752	BAA82306.1	Nicotiana tabacum
AF149279	AAD37429.2	Phaseolus vulgaris
AF244921	CAB63024.1	Spinacia oleracea
AJ242742	CAB94692.1	Ipomoea batatas
U51193	AAD11483.1	Glycine max
AJ401276	CAC21393.1	Zea mays
AF014502	AAB97734.1	Glycine max
X90693	CAA62226.1	Medicago sativa
D49551	BAA08499.1	Oryza sativa
AP001073	BAA89584.1	Oryza sativa
AP001081	BAA90365.1	Oryza sativa
AF007211	AAK98519.1	Glycine max
J02979	AAA34108.1	Nicotiana tabacum
X71593	CAR50597.1	Lycopersicon esculentum
D11396	BAA01992.1	Nicotiana tabacum
AP001383	BAA92500.1	Oryza sativa
X91172	CAAG2597.1	Raphanus sativus
AF155124	AAD43561.1	Gossypium hirsutum
AF149280	AAD37430.1	Phaseolus vulgaris
Y16778	CAR76376.1	Spinacia oleracea
Y19023	CAB67121.1	Lycopersicon esculentum
Y17192	CAAG7680.1	Cucurbita pepo
Y10468	CAR71494.1	Spinacia oleracea
AB042103	BAA94962.1	Asparagus officinalis
D30653	BAA06335.1	Populus kitakamiensis
X97351	CAAG66037.1	Populus balsamifera subsp. trichocarpa
M74103	AAA34050.1	Nicotiana sylvestris
X90694	CAR62227.1	Medicago sativa
AF244924	AAF63027.1	Spinacia oleracea
SEQ ID NO.	1499	
AF022460	AAB94589.1	Glycine max
M32885	AAA32913.1	Persea americana
L24438	AAA19701.1	Thlaspi arvense
AB037245	BAB40324.1	Asparagus officinalis
AF029858	AAC39318.1	Sorghum bicolor
AB037244	BAB40323.1	Asparagus officinalis
Y09423	CAA70575.1	Nepeta racemosa
AF166332	AAD47832.1	Nicotiana tabacum
AF022459	AAB94588.1	Glycine max
AF122821	AAE27282.1	Capsicum annuum
X70981	CAA50312.1	Solanum melongena
Z33875	CAA83941.1	Mentha x piperita
AF218296	AAG44132.1	Pisum sativum
Y09424	CAA70576.1	Nepeta racemosa
AF124816	AAD44151.1	Mentha x piperita
D14990	BAA03635.1	Solanum melongena
X71654	CAA50645.1	Solanum melongena
AF150881	AAD37433.1	Lycopersicon esculentum x peruvianum
X96784	CAA65580.1	Nicotiana tabacum
AF124817	AAD44152.1	Mentha x piperita
X95342	CAA64635.1	Nicotiana tabacum

AAG14962.1	AF214008	Brassica napus	AAG61118.1	AF329371	Zea mays
AAG14961.1	AF214007	Brassica napus	AAB67860.1	U60201	Solanum tuberosum
CAB56503.1	AJ238612	Catharanthus roseus	AAA53184.1	U09026	Lycopersicon esculentum
AAG14963.1	AF214009	Brassica napus	AAG21691.1	AY008278	Lycopersicon esculentum
AAD44150.1	AF124815	Mentha spicata	CAA64766.1	X95513	Solanum tuberosum
AAD56282.1	AF155332	Petunia x hybrida	CAB65460.1	Y18548	Solanum tuberosum
AAB94584.1	AF022157	Glycine max	AAB67858.1	U60200	Solanum tuberosum
BAA12159.1	D83968	Glycine max	AAB81595.1	AF019614	Solanum tuberosum
CAA50155.1	X70824	Solanum melongena	CAA55724.1	X79107	Solanum tuberosum
SEQ ID NO. 1500			AAB18970.2	U76687	Phaseolus vulgaris
CAC24844.1	AJ303354	Hordeum vulgare	AAB81594.1	AF019613	Solanum tuberosum
SEQ ID NO. 1501			AAA64893.1	L35931	Hordeum vulgare
BAA33415.1	AB017525	Brassica napus	CAA55318.1	X78580	Pisum sativum
BAA33417.1	AB017527	Brassica napus	AAA79186.1	U36339	Cucumis sativus
BAA33418.1	AB017528	Brassica rapa	CAB83038.1	AJ271161	Cucumis sativus
BAA33421.1	AB017531	Brassica oleracea	AAB60715.1	L37359	Hordeum vulgare
BAA33419.1	AB017529	Brassica rapa	CAA58859.1	X84040	Nicotiana tabacum
BAA33416.1	AB017526	Brassica napus	AAF15296.2	AF204210	Phaseolus vulgaris
BAA33420.1	AB017530	Brassica oleracea	AAB31252.1	S73865	Solanum tuberosum
AAG31808.1	AF316419	Lolium perenne	BAA03042.1	D13949	Glycine max
SEQ ID NO. 1502			CAA97845.1	Z73498	Vicia faba
AAK35215.1	AF355602	Zea mays	AA333987.1	J03211	Glycine max
AAK27688.1	AF347614	Lycopersicon esculentum	AAB67865.1	U60202	Solanum tuberosum
CAA65291.1	X96431	Hordeum vulgare	CAA63483.1	X92890	Cucumis sativus
AAA97952.1	U52867	Hordeum vulgare	AAC49159.1	U36191	Glycine max
AAK27687.1	AF347613	Lycopersicon esculentum	AAC61785.1	U25058	Cucumis sativus
CAA57711.1	X82256	Stylosanthes hamata	AAD04258.1	AF039651	Solanum tuberosum
AAG41419.1	AF309643	Solanum tuberosum	CAA75609.1	Y15410	Pisum sativum
CAA57710.1	X82255	Stylosanthes hamata	AAB71759.1	U84198	Pisum sativum
CAA65536.1	X96761	Sporobolus stapfianus	AAD09202.1	U24232	Solanum tuberosum
CAA57831.1	X82454	Stylosanthes hamata	AAB67732.1	U50075	Glycine max
CAA11413.1	AJ223495	Brassica juncea	CAA39604.1	X56139	Glycine max
AAB94543.1	AF016306	Zea mays	CAA64765.1	X95512	Solanum tuberosum
SEQ ID NO. 1504			AAA74393.1	U13681	Lycopersicon esculentum
CAB94852.1	AJ404331	Prunus dulcis	AAA53183.1	U09025	Lycopersicon esculentum
CAA34906.1	X17061	Pisum sativum	AAB41272.1	U50081	Glycine max
AAF76207.1	AF271894	Zea mays	CAA30016.1	X06928	Glycine max
			CAA55319.1	X78581	Pisum sativum
			CAA47717.1	X67304	Glycine max
			CAA45088.1	X63525	Phaseolus vulgaris
			AAA33986.1	J02795	Glycine max



AAA03726.1	U04785	Glycine max	AAA33915.1	L27821	Oryza sativa
CAA64769.1	X95516	Solanum tuberosum	AAD21872.1	AF078082	Phaseolus vulgaris
SEQ ID NO. 1505			AAG03090.1	AC073405	Oryza sativa
BAA08479.1	D49535	Citrullus lanatus	BAA94510.1	AB041504	Populus nigra
BAA12843.1	D85624	Citrullus lanatus	AAG16628.1	AY007545	Brassica napus
BAA21827.1	AB006530	Citrullus lanatus	BAA94509.1	AB041503	Populus nigra
BAA13635.1	D88530	Spinacia oleracea	CAA97692.1	Z73295	Catharanthus roseus
BAA13634.1	D88529	Spinacia oleracea	CAB51834.1	00069	Oryza sativa
BAA93050.1	AB040502	Allium tuberosum	BAA84787.1	AF000559	Oryza sativa
AAF19000.1	AF212156	Allium cepa	BAA83373.1	AF000391	Oryza sativa
SEQ ID NO. 1506			BAA92954.1	AF001551	Oryza sativa
AAD48912.1	AF139532	Liquidambar styraciflua	AAF43496.1	AF131222	Lophopyrum elongatum
CAC26920.1	AJ295586	Arabisopsis lyrata subsp.	AAK11674.1	AF339747	Lophopyrum elongatum
petraea			BAA94529.2	AP001800	Oryza sativa
AAD37433.1	AF150881	Lycopersicon esculentum x	BAA94517.1	AP001800	Oryza sativa
Lycopersicon peruvianum			BAA78764.1	AB023482	Oryza sativa
CAB65335.1	AJ010324	Populus balsamifera subsp.	BAA94516.1	AP001800	Oryza sativa
trichocarpa			AAB93834.1	U82481	Zea mays
AAG49301.1	AF313491	Matthiola incana	AAB47422.1	U59318	Lycopersicon esculentum
AAD56282.1	AF155332	Petunia x hybrida	AAE76314.1	AF220603	Lycopersicon esculentum
AAG49299.1	AF313489	Callistephus chinensis	AAB47424.1	U59317	Lycopersicon pimpinellifolium
AAG49315.1	AF315465	Pelargonium x hortorum	AAF76307.1	AF220602	Lycopersicon pimpinellifolium
CAA80266.1	Z22545	Petunia x hybrida	CAA67145.1	X98520	Brassica oleracea
BAA03438.1	D14588	Petunia x hybrida	SEQ ID NO. 1511		
AAC32274.1	AF081575	Petunia x hybrida	CAA50498.1	X71360	Malus sp.
CAA09850.1	AJ011862	Catharanthus roseus	AAC49826.1	U71604	Catharanthus roseus
CAA80265.1	Z22544	Petunia x hybrida	AAC49827.1	U71605	Catharanthus roseus
AAG49300.1	AF313490	Lycianthes rantonnei	AAB97311.1	AF008597	Catharanthus roseus
BAA03440.1	D14590	Campanula medium	AAD26206.1	AF117270	Malus x domestica
CAA50645.1	X71654	Solanum melongena	CAA53579.1	X75965	Vitis vinifera
CAA50155.1	X70824	Solanum melongena	BAA78340.1	AB017153	Atropa belladonna
CAA50312.1	X70981	Solanum melongena	CAA55628.1	X78994	Medicago sativa
SEQ ID NO. 1508			AAC97525.1	U23066	Persea americana
AAB37246.1	U58971	Nicotiana tabacum	BAA19657.1	AB002816	Perilla frutescens
SEQ ID NO. 1510			AAC86820.1	U93210	Pisum sativum
AAB61708.1	U93048	Daucus carota	CAA57410.1	X81812	Medicago sativa
AAK21965.1	AY028659	Brassica napus	AAA91227.1	U04434	Zea mays
			AAC15414.1	AF036093	Nicotiana tabacum
			AAB97310.1	U86837	Chrysanthemum x morifolium
			BAA05630.1	D26583	Hyoscyamus niger

AAA33387.1	M62719	Hyoscyamus niger	BAA82307.1	AB027753	Nicotiana tabacum
AAD56577.1	AF184270	Daucus carota	AAB67737.1	L77080	Stylosanthes humilis
SEQ ID NO. 1515			AAD37429.2	AF149279	Phaseolus vulgaris
AAC32138.1	AF051237	Picea mariana	CAA71494.1	Y10468	Spinacia oleracea
			AAD37375.1	AF145349	Glycine max
SEQ ID NO. 1517			AAF63024.1	AF244921	Spinacia oleracea
AAF61647.1	AF190634	Nicotiana tabacum	CAA66037.1	X97351	Populus balsamifera subsp.
BAA89009.1	AB027455	Petunia x hybrida	trichocarpa		
BAA36421.1	AB013596	Perilla frutescens	AAA65637.1	L13654	Lycopersicon esculentum
BAA36423.1	AB013598	Verbena x hybrida	CAA40796.1	X57564	Armoracia rusticana
BAA93039.1	AB033758	Citrus unshiu	AAD11482.1	U51192	Glycine max
BAA36422.1	AB013597	Perilla frutescens	CAA80502.1	Z22920	Spirodela polyrrhiza
AAF98390.1	AF287143	Brassica napus	BAA77387.1	AB024437	Scutellaria baicalensis
AAD21086.1	AF127218	Forsythia x intermedia	CAA59485.1	X85228	Triticum aestivum
BAA12737.1	D85186	Gentiana triflora	BAA07663.1	D42064	Nicotiana tabacum
BAA90787.1	AB038248	Ipomoea batatas	BAA11853.1	D83225	Populus nigra
AAF17077.1	AF199453	Sorghum bicolor	BAA07664.1	D42065	Nicotiana tabacum
AAD04166.1	AF101972	Phaseolus lunatus	AAD37430.1	AF149280	Phaseolus vulgaris
BAA89008.1	AB027454	Petunia x hybrida	AAD11481.1	U51191	Glycine max
AAB86473.1	AF028237	Ipomoea purpurea	CAB94692.1	AJ242742	Ipomoea batatas
BAA19659.1	AB002818	Perilla frutescens	BAA03644.1	D14997	Oryza sativa
CAA54612.1	X77462	Manihot esculenta	AAD43561.1	AF155124	Gossypium hirsutum
BAA83484.1	AB031274	Scutellaria baicalensis	BAA06334.1	D30652	Populus kitakamiensis
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	BAA92500.1	AF001383	Oryza sativa
CAA59450.1	X85138	Lycopersicon esculentum	BAA90365.1	AF001081	Oryza sativa
BAB41020.1	AB047093	Vitis vinifera	BAA89584.1	AF001073	Oryza sativa
BAB41022.1	AB047095	Vitis vinifera	AAC49820.1	AF014469	Oryza sativa
AAB81682.1	AF000371	Vitis vinifera	CAA66034.1	X97348	Populus balsamifera subsp.
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	trichocarpa		
BAB41026.1	AB047099	Vitis vinifera	BAA14144.1	D90116	Armoracia rusticana
BAB41024.1	AB047097	Vitis vinifera	AAB97734.1	AF014502	Glycine max
BAB41025.1	AB047098	Vitis vinifera	CAA37713.1	X53675	Triticum aestivum
BAB41023.1	AB047096	Vitis vinifera	AAC05277.1	AF049881	Linum usitatissimum
BAB41021.1	AB047094	Vitis vinifera	CAA66035.1	X97349	Populus balsamifera subsp.
BAB41019.1	AB047092	Vitis vinifera	trichocarpa		
AAB81683.1	AF000372	Vitis vinifera	BAA06335.1	D30653	Populus kitakamiensis
SEQ ID NO. 1518			CAA39486.1	X56011	Triticum aestivum
CAA64413.1	X94943	Lycopersicon esculentum	BAA03911.1	D16442	Oryza sativa
AAA32676.1	M37637	Arachis hypogaea	BAA94962.1	AB042103	Asparagus officinalis
			AAC49821.1	AF014470	Oryza sativa
			AAD37427.1	AF149277	Phaseolus vulgaris

CAA76374.2	Y16776	Spinacia oleracea	SEQ ID NO. 1529		Pisum sativum
BAA08499.1	D49551	Oryza sativa	AAC49792.1	AF001219	Pisum sativum
CAA66036.1	X97350	Populus balsamifera subsp.	AAC86820.1	U93210	Pisum sativum
trichocarpa			AAC49793.1	AF010167	Pisum sativum
AAA34108.1	J02979	Nicotiana tabacum	AAC96017.1	AF007766	Pisum sativum
CRA62226.1	X90693	Medicago sativa	AAC96015.1	AF004730	Pisum sativum
CAA59487.1	X85230	Triticum aestivum	AAC49794.1	AF010168	Pisum sativum
			BAA89316.1	AB032198	Nicotiana tabacum
SEQ ID NO. 1520			BAA37129.1	AB012205	Lactuca sativa
CAA39438.1	X55967	Zea mays	BAA34124.1	AB010991	Lycopersicon esculentum
AAC14469.1	L28831	Glycine max	BAA37130.1	AB012206	Lactuca sativa
AAF34771.1	AF227626	Euphorbia esula	BAA34125.1	AB010992	Lycopersicon esculentum
AAA34006.1	M31024	Glycine max	CAB92914.1	AJ006453	Cucurbita maxima
CAA46835.1	X66036	Dunaliella tertiolecta	BAB12439.1	AB031203	Lactuca sativa
			AAB64347.1	U63650	Cucurbita maxima
SEQ ID NO. 1522			BAB32734.1	AB049408	Eustoma grandiflorum
AAA33136.1	L16983	Daucus carota	BAB12438.1	AB031202	Lactuca sativa
CAA61158.1	X87931	Beta vulgaris	AAD45425.1	AF100955	Pisum sativum
			AAF08609.1	AF056935	Pisum sativum
SEQ ID NO. 1523			AAF13735.1	AF101383	Pisum sativum
AAA80588.1	U20502	Glycine max	BAB12442.1	AB031206	Lactuca sativa
CAA54678.1	X77569	Zea mays	CAC26921.1	AJ295607	Arabidopsis lyrata subsp.
CAA76741.1	Y17329	Pisum sativum	petraea		
CAA84491.1	Z35108	Helianthus tuberosus	AAC49757.1	U70531	Phaseolus vulgaris
			CAA50498.1	X71360	Malus sp.
SEQ ID NO. 1525			BAA32156.1	AB012856	Nicotiana tabacum
BAA97122.1	AB016264	Nicotiana sylvestris	AAG43043.1	AY014277	Lolium perenne
BAA07321.1	D38123	Nicotiana tabacum	AAD15755.1	AF049898	Lycopersicon esculentum
BAA87068.1	AB035270	Matricaria chamomilla	CAB96202.1	AJ250187	Citrus sinensis x Poncirus
BAA97124.1	AB016266	Nicotiana sylvestris	trifoliata		
AAC62619.1	AF057373	Nicotiana tabacum	AAG43044.1	AY014280	Lolium perenne
AAF05606.1	AF190770	Oryza sativa			
BAA81845.1	AB026295	Oryza sativa	SEQ ID NO. 1530		Oryza sativa
BAA97123.1	AB016265	Nicotiana sylvestris	AAG43286.1	AF140228	
BAA76734.1	AB024575	Nicotiana tabacum			
BAB03248.1	AB037183	Oryza sativa	SEQ ID NO. 1536		Populus nigra
AAD00708.1	U91857	Stylosanthes hamata	BAA82556.1	AB030083	Daucus carota
			AAB61708.1	U93048	Brassica napus
SEQ ID NO. 1528			AAK21965.1	AY028699	Zea mays
CAA61275.1	X88797	Eucalyptus gunnii	AAB93834.1	U82481	Phaseolus vulgaris
			AAD21872.1	AF078082	



AAK14807.1	Physcomitrella patens	AAC49188.2	Pisum sativum	U29333
CAA07547.1	Cichorium intybus x Cichorium endivia	AAG44132.1	Pisum sativum	AF218296
L28826	Casuarina glauca	CAA65580.1	Nicotiana tabacum	X96784
M23313	Sesbania rostrata	BAA12159.1	Glycine max	D83968
AB015719	Pisum sativum	AAD56282.1	Petunia x hybrida	AF155332
AB015721	Pisum sativum	CAA64635.1	Nicotiana tabacum	X95342
M91077	Medicago sativa	AAD38930.1	Glycine max	AF135485
X57733	Medicago truncatula	AAB94590.1	Glycine max	AF022461
AB015720	Pisum sativum	CAB56742.1	Cicer arietinum	AJ249800
X14311	Medicago sativa	BAA13076.1	Glycine max	D86351
M36100	Medicago sativa	AAC39454.1	Eschscholzia californica	AF014802
AB009844	Pisum sativum	BAA74466.1	Glycyrrhiza echinata	AB022733
X13375	Medicago sativa	BAA22423.1	Glycyrrhiza echinata	AB001380
Z54159	Vicia faba	CAA70575.1	Nepeta racemosa	Y09423
U09671	Canavalia lineata	CAA50648.1	Solanum melongena	X71657
Z54158	Vicia faba	AAB94587.1	Glycine max	AF022458
Z54157	Vicia faba	BAA84072.1	Torenia hybrida	AB028152
X13505	Sesbania rostrata	AAC32274.1	Petunia x hybrida	AF081575
X13815	Sesbania rostrata	BAA92894.1	Petunia x hybrida	AB006790
X54089	Medicago sativa	SEQ ID NO. 1542		
M23312	Sesbania rostrata	AAB63814.1	Glycine max	L46848
SEQ ID NO. 1540		AAF34767.1	Euphorbia esula	AF227622
AAB65776.1	Vitis vinifera	BAA04668.1	Oryza sativa	D21130
AAB65777.1	Vitis vinifera	CAA63786.1	Lupinus luteus	X93587
BAA03751.1	Oryza sativa	CAA69256.1	Zea mays	Y07959
CAA30142.1	Solanum tuberosum	SEQ ID NO. 1544		
BAA03749.1	Oryza sativa	AAB84222.1	Helianthus annuus	AF030301
SEQ ID NO. 1541		CAA39708.1	Nicotiana tabacum	X56267
CAB433505.1	Cicer arietinum	SEQ ID NO. 1547		
BAA93634.1	Lotus japonicus	AAC36697.1	Mesembryanthemum crystallinum	AF075579
CAB41490.1	Cicer arietinum	CAC10358.1	Nicotiana tabacum	AJ277086
CAA10067.1	Cicer arietinum	CAB90633.1	Fagus sylvatica	AJ277743
BAA22422.1	Glycyrrhiza echinata	CAC10359.1	Nicotiana tabacum	AJ277087
BAA74465.1	Glycyrrhiza echinata	AAD17804.1	Lotus japonicus	AF092431
CAA04117.1	Helianthus tuberosus	CAC09575.1	Fagus sylvatica	AJ298987
CAA04116.1	Helianthus tuberosus	CAA72341.1	Medicago sativa	Y11607
AAA32913.1	Persea americana	AAD17805.1	Lotus japonicus	AF092432
AAG09208.1	Pisum sativum	AAC36698.1	Mesembryanthemum crystallinum	AF075580

AAC36699.1	AF075581	Mesembryanthemum crystallinum	CAA66037.1	X97351	Populus balsamifera subsp.
AAG43835.1	AF213455	Zea mays	trichocarpa		
AAC36700.1	AF075582	Mesembryanthemum crystallinum	BAA01877.1	D11102	Populus kitakamiensis
AAD11430.1	AF097667	Mesembryanthemum crystallinum	CAA62227.1	X90694	Medicago sativa
AAC35951.1	AF079355	Mesembryanthemum crystallinum	BAA07241.1	D38051	Populus kitakamiensis
CAB90634.1	AJ277744	Fagus sylvatica	BAA01950.1	D11337	Vigna angularis
AAB93832.1	U81960	Zea mays	AAE65464.2	AF247700	Oryza sativa
AAC26828.1	AF075603	Oryza sativa	AAE63027.1	AF244924	Spinacia oleracea
CAC09576.1	AJ298988	Fagus sylvatica	CAC21393.1	AJ401276	Zea mays
			CAA59487.1	X85230	Triticum aestivum
			AAD37430.1	AF149280	Phaseolus vulgaris
SEQ ID NO. 1548			CAA71491.1	Y10465	Spinacia oleracea
CAR09881.1	AJ011939	Trifolium repens	AAB41811.1	L36157	Medicago sativa
CAA62228.1	X90695	Medicago sativa	BAA03644.1	D14997	Oryza sativa
CAA71495.1	Y10469	Spinacia oleracea	AAA32676.1	M37637	Arachis hypogaea
AAB41812.1	L36158	Medicago sativa	CAA71494.1	Y10468	Spinacia oleracea
BAA77387.1	AB024437	Scutellaria baicalensis	AAA34050.1	M74103	Nicotiana sylvestris
AAF63024.1	AF244921	Spinacia oleracea	CAA40796.1	X57564	Armoracia rusticana
AAD11483.1	U51193	Glycine max			
AAB67737.1	L77080	Stylosanthes humilis			
BAA07663.1	D42064	Nicotiana tabacum			
BAA07664.1	D42065	Nicotiana tabacum			
CAB94692.1	AJ242742	Ipomoea batatas			
CAB67121.1	Y19023	Lycopersicon esculentum	SEQ ID NO. 1549		
CAA62226.1	X90693	Medicago sativa	CAA76374.2	Y16776	Spinacia oleracea
CAA50597.1	X71593	Lycopersicon esculentum	AAD11482.1	U51192	Glycine max
AAD11481.1	U51191	Glycine max	AAD11481.1	U51191	Glycine max
AAD11484.1	U51194	Glycine max	BAA07663.1	D42064	Nicotiana tabacum
BAA82306.1	AB027752	Nicotiana tabacum	AAA65637.1	L13654	Lycopersicon esculentum
AAA65637.1	L13654	Lycopersicon esculentum	AAA65636.1	L13653	Lycopersicon esculentum
AAD11482.1	U51192	Glycine max	BAA07664.1	D42065	Nicotiana tabacum
CAA62225.1	X90692	Medicago sativa	BAA03644.1	D14997	Oryza sativa
AAC98519.1	AF007211	Glycine max	AAA32676.1	M37637	Arachis hypogaea
AAD37427.1	AF149277	Phaseolus vulgaris	CAA80502.1	Z22920	Spirodela polyrrhiza
BAA14144.1	D90116	Armoracia rusticana	AAB67737.1	L77080	Stylosanthes humilis
AAA98491.1	L36981	Petroselinum crispum	BAA82307.1	AB027753	Nicotiana tabacum
CAA71488.1	Y10462	Spinacia oleracea	CAA64413.1	X94943	Lycopersicon esculentum
AAD43561.1	AF155124	Gossypium hirsutum	AAD11484.1	U51194	Glycine max
BAA14143.1	D90115	Armoracia rusticana	AAF63024.1	AF244921	Spinacia oleracea
CAA71490.1	Y10464	Spinacia oleracea	AAD11483.1	U51193	Glycine max
AAB02554.1	L37790	Stylosanthes humilis	CAA71494.1	Y10468	Spinacia oleracea
			AAD37429.2	AF149279	Phaseolus vulgaris
			BAA92500.1	AP001383	Oryza sativa
			AAC98519.1	AF007211	Glycine max
			CAB67121.1	Y19023	Lycopersicon esculentum

CAA62226.1	X90693	Medicago sativa	BBB39391.1	AB048949	Hordeum vulgare
CAA50597.1	X71593	Lycopersicon esculentum	CAA76131.1	Y16242	Triticum aestivum
AAD37375.1	AF145349	Glycine max	AAA33899.1	L10346	Oryza sativa
AAB97734.1	AF014502	Glycine max	CAC16789.1	AJ301645	Hordeum vulgare
BAA94962.1	AB042103	Asparagus officinalis	AAG44882.1	AF284857	Calystegia sepium
CAB65334.1	AJ250121	Picea abies	CAA67128.1	X98504	Triticum aestivum
BAA06335.1	D30653	Populus kitakamiensis	AAD15902.1	AF068119	Zea mays
BAA77387.1	AB024437	Scutellaria baicalensis	CAA77817.1	Z11772	Secale cereale
CAA71490.1	Y10464	Spinacia oleracea	CAA81091.1	Z25871	Zea mays
AAD43561.1	AF155124	Gossypium hirsutum	BAA02286.1	D12882	Ipomoea batatas
AAF63027.1	AF244924	Spinacia oleracea	BAA92921.1	AP001539	Oryza sativa
BAA14144.1	D90116	Armoracia rusticana	BAA00828.1	D01022	Ipomoea batatas
CAA76680.1	Y17192	Cucurbita pepo	AAD38148.1	AF139501	Prunus armeniaca
BAA89584.1	AP001073	Oryza sativa	AAB64177.1	AF012345	Hordeum vulgare
BAA90365.1	AP001081	Oryza sativa	BAA09793.1	D63574	Hordeum vulgare
CAB94692.1	AJ242742	Ipomoea batatas	CAA40105.1	X56785	Secale cereale
AAB41811.1	L36157	Medicago sativa	SEQ ID NO. 1551		
CAC21393.1	AJ401276	Zea mays	CAA11219.1	AJ223281	Manihot esculenta
AAD37427.1	AF149277	Phaseolus vulgaris	AAC49184.1	U40402	Hevea brasiliensis
CAA71488.1	Y10462	Spinacia oleracea	CAA82334.1	Z29091	Manihot esculenta
CAA62227.1	X90694	Medicago sativa	CAA11428.1	AJ223506	Manihot esculenta
CAA62615.1	X91232	Mercurialis annua			
CAA66037.1	X97351	Populus balsamifera subsp. trichocarpa	SEQ ID NO. 1552		
SEQ ID NO. 1550			AAC34858.1	AF082033	Hemerocallis hybrid cultivar
AAD04188.1	AF026217	Medicago sativa	AAG28600.1	AF247134	Limnanthes douglasii
BAA09462.1	D50866	Glycine max	AAC49186.1	U37088	Simmondsia chinensis
BAA20453.1	AB004271	Glycine max	AAB72178.1	AF009563	Brassica napus
AAD04259.1	AF049098	Trifolium repens	AAA96054.1	U50771	Brassica napus
CAA12395.1	AJ225087	Vigna unguiculata	AAK11266.1	AF333040	Dunaliella salina
BAA04815.1	D21349	Hordeum vulgare	CAA71898.1	Y11007	Brassica juncea
BAA08741.1	D49999	Hordeum vulgare	CAC17746.1	AJ291728	Zea mays
AAC67246.1	AF061204	Hordeum vulgare subsp. spontaneum	AAC25109.1	AF054497	Brassica napus
AAA33898.1	L10345	Oryza sativa	AAC25110.1	AF054498	Brassica napus
CAA36556.1	X52321	Hordeum vulgare	AAC25111.1	AF054499	Brassica rapa
AAG25637.1	AF300799	Hordeum vulgare	AAC25112.1	AF054500	Brassica oleracea
AAC67245.1	AF061203	Hordeum vulgare	SEQ ID NO. 1553		
AAK30294.1	AF353207	Castanea crenata	BAA07328.1	D38132	Cucurbita sp.
AAG25638.1	AF300800	Hordeum vulgare	AAA82743.1	U19481	Citrus maxima
			BAA32557.1	AB017159	Daucus carota

CAA59010.1	X84228	Beta vulgaris	CAA67600.1	X99210	Lycopersicon esculentum
CAA59008.1	X84226	Nicotiana tabacum	CAA64614.1	X95296	Lycopersicon esculentum
CAA52976.1	X75082	Solanum tuberosum	AAF22256.1	AF161711	Pimpinella brachycarpa
BAA82390.1	AP000367	Oryza sativa	BAA88222.1	AB028650	Nicotiana tabacum
CAA59009.1	X84227	Populus x generosa	CAA67575.1	X99134	Lycopersicon esculentum
			CAA78387.1	Z13997	Petunia x hybrida
			CAA66952.1	X98308	Lycopersicon esculentum
SEQ ID NO. 1555			AAB41101.1	U72762	Nicotiana tabacum
AAF67052.1	AF190303	Adiantum raddianum	AAA33500.1	M73028	Zea mays
AAG08959.1	AF122051	Solanum tuberosum	AAG36774.1	AF210616	Zea mays
AAF67053.1	AF190304	Adiantum raddianum	BAA88223.1	AB028651	Nicotiana tabacum
AAF67050.1	AF190301	Secale cereale	BAA88224.1	AB028652	Nicotiana tabacum
AAF67051.1	AF190302	Secale cereale	BAA88221.1	AB028649	Nicotiana tabacum
AAG08961.1	AF122053	Solanum tuberosum			
AAG08960.1	AF122052	Solanum tuberosum			
BAA81731.1	AB029160	Glycine max	SEQ ID NO. 1557		
BAA81730.1	AB029159	Glycine max	BAA03763.1	D16247	Nicotiana sylvestris
CAA72217.1	Y11414	Oryza sativa	AAF40306.1	AF156667	Vigna radiata
BAA81732.1	AB029161	Glycine max	AAF75791.1	AF271892	Pisum sativum
CAA64615.1	X95297	Lycopersicon esculentum	CAA68193.1	X99937	Spinacia oleracea
AAG08962.1	AF122054	Solanum tuberosum	AAD20980.1	AF079782	Zea mays
BAA88223.1	AB028651	Nicotiana tabacum	BAA95705.1	AB042644	Oryza sativa
CAA78387.1	Z13997	Petunia x hybrida	BAA95704.1	AB042643	Oryza sativa
AAB41101.1	U72762	Nicotiana tabacum	AAG48033.1	AC084218	Oryza sativa
BAB40790.1	AB058642	Lilium hybrid division I			
AAG13574.1	AC037425	Oryza sativa	SEQ ID NO. 1559		
BAA88221.1	AB028649	Nicotiana tabacum	BAA83689.1	AB011968	Oryza sativa
CAA72185.1	Y11350	Oryza sativa	BAA83688.1	AB011967	Oryza sativa
BAA88224.1	AB028652	Nicotiana tabacum	AAF22219.1	AF141378	Zea mays
BAA88222.1	AB028650	Nicotiana tabacum	BAA34675.1	AB011670	Triticum aestivum
BAA81733.2	AB029162	Glycine max	CAA73068.1	Y12465	Sorghum bicolor
CAA71992.1	Y11105	Pisum sativum	CAA73067.1	Y12464	Sorghum bicolor
AAK19618.1	AF336285	Gossypium hirsutum	AAB62693.1	AF004947	Oryza sativa
AAK19611.1	AF336278	Gossypium hirsutum	BAA96628.1	AP002482	Oryza sativa
AAF34434.1	AF172282	Oryza sativa	AAD23582.1	AF128443	Glycine max
CAA67575.1	X99134	Lycopersicon esculentum	BAA05649.1	D26602	Nicotiana tabacum
AAK08983.1	AY026332	Oryza sativa	CAA71142.1	Y10036	Cucumis sativus
AAK19615.1	AF336282	Gossypium hirsutum	AAC99329.1	AF062479	Oryza sativa
			CAA65244.1	X95997	Solanum tuberosum
SEQ ID NO. 1556			CAA57898.1	X82548	Hordeum vulgare
CAA78386.1	Z13996	Petunia x hybrida	CAA07813.1	AJ007990	Hordeum vulgare
CAB43399.1	AJ006292	Antirrhinum majus	CAA46556.1	X65606	Hordeum vulgare



AAB05457.1	U55768	Oryza sativa	CRA54045.1	X76535	Solanum tuberosum
CAA46554.1	X65604	Hordeum vulgare	AAB84202.2	AF029256	Kosteletzkyia virginica
AAD00239.1	U73938	Nicotiana tabacum	CAA47275.1	X66737	Nicotiana plumbaginifolia
AAD00240.1	U73939	Nicotiana tabacum	BAA37150.1	AD022442	Vicia faba
BAA13608.1	D88399	Oryza sativa	BAA08134.1	D45189	Zostera marina
AAG60195.1	AC084763	Oryza sativa	CAB69824.1	AJ271439	Prunus persica
BAA19573.1	AB002109	Oryza sativa	CAB69823.1	AJ271438	Prunus persica
AAB68962.1	L38855	Glycine max	AAB35314.2	S79323	Vicia faba
AAB58348.1	U29095	Triticum aestivum	CAB85495.1	AJ132892	Medicago truncatula
AAF27340.1	AF186020	Vicia faba	CAB85494.1	AJ132891	Medicago truncatula
AAA96325.1	M94726	Triticum aestivum	AAA34173.1	M60166	Lycopersicon esculentum
CAA81443.1	Z26846	Mesembryanthemum crystallinum	CAC29436.1	AJ310524	Vicia faba
CAA06503.1	AJ005373	Craterostigma plantagineum	AA34098.1	M80490	Nicotiana plumbaginifolia
AAF21062.1	AF216527	Dunaliella tertiolecta	AAB60276.1	U09989	Zea mays
CAA89202.1	Z49233	Chlamydomonas eugametos	AA34094.1	M80489	Nicotiana plumbaginifolia
			AA34052.1	M27888	Nicotiana plumbaginifolia
SEQ ID NO. 1565			CAA59799.1	X85804	Phaseolus vulgaris
BAA90357.1	AP001080	Oryza sativa	AAF98344.1	AF275745	Lycopersicon esculentum
BAA85438.1	AP000616	Oryza sativa	AAD55399.1	AF179442	Lycopersicon esculentum
BAA78746.1	AB023482	Oryza sativa	BAA06629.1	D31843	Oryza sativa
AAG43550.1	AF211532	Nicotiana tabacum	CAA54046.1	X76536	Solanum tuberosum
BAA96875.1	AB045121	Oryza sativa	CAC29435.1	AJ310523	Vicia faba
			AAD46187.1	AF156683	Nicotiana plumbaginifolia
SEQ ID NO. 1570			CAA52107.1	X73901	Dunaliella bioculata
CAA68234.1	X99972	Brassica oleracea	AAB49042.1	U54690	Dunaliella acidophila
AAG28435.1	AF195028	Glycine max	AAK31799.1	AY029190	Lilium longiflorum
AAG28436.1	AF195029	Glycine max	AAD29712.1	AF140499	Oryza sativa
AAD31896.1	AF145478	Mesembryanthemum crystallinum	AA801348.1	U38965	Vicia faba
CAA63790.1	X93592	Dunaliella bioculata	AAK32118.1	AF308816	Hordeum vulgare
BAA90510.2	AP001111	Oryza sativa	AAF97591.1	AF263917	Lycopersicon esculentum
AAD11617.1	AF050495	Lycopersicon esculentum	AA34099.1	M80491	Nicotiana plumbaginifolia
AAA34138.1	M96324	Lycopersicon esculentum	AAK32119.1	AF308817	Hordeum vulgare
AAD11618.1	AF050496	Lycopersicon esculentum			
AAF73985.1	AF096871	Zea mays	SEQ ID NO. 1571		
AAB58910.1	U82966	Oryza sativa	AAA34236.1	M94863	Vigna radiata
AAD46188.1	AF156691	Nicotiana plumbaginifolia	CAA81749.1	Z27235	Solanum tuberosum
CAA59800.1	X85805	Zea mays	AAF22108.1	AF119410	Lupinus albus
AAB17186.1	U72148	Lycopersicon esculentum	AAF22112.1	AF119414	Lupinus albus
BAA01058.1	D10207	Oryza sativa	BAA76388.1	AB007639	Pyrus pyrifolia
AAD46186.1	AF156679	Nicotiana plumbaginifolia	CAB01401.1	Z77854	Phalaenopsis sp.
AAB41898.1	U84891	Mesembryanthemum crystallinum	CAB86187.1	AJ277161	Carica papaya

[illegible]

AAF61647.1	AF190634	Nicotiana tabacum	AA34002.1	M67449	Glycine max
BAA89009.1	AB027455	Petunia x hybrida	CAC09580.1	AJ298992	Fagus sylvatica
BAA33039.1	AB033758	Citrus unshiu	AAK11734.1	AY027437	Arachis hypogaea
BAA36423.1	AB013598	Verbena x hybrida	AAF34436.1	AF172282	Oryza sativa
BAA36421.1	AB013596	Perilla frutescens	AAF66615.1	AF142596	Nicotiana tabacum
AAF98390.1	AF287143	Brassica napus	CAA08995.1	AJ010091	Brassica napus
BAA36422.1	AB013597	Perilla frutescens	BAA06538.1	D31737	Nicotiana tabacum
AAD21086.1	AF127218	Forsythia x intermedia	AAK11674.1	AF339747	Lophopyrum elongatum
BAA12737.1	D85186	Gentiana triflora	BAA05648.1	D26601	Nicotiana tabacum
CAA59450.1	X85138	Lycopersicon esculentum	AAF43496.1	AF131222	Lophopyrum elongatum
AAF17077.1	AF199453	Sorghum bicolor	AAK21965.1	AY028699	Brassica napus
BAA89008.1	AB027454	Petunia x hybrida	RAA09771.1	U67422	Zea mays
AA881683.1	AF000372	Vitis vinifera	AAF76189.1	AF271206	Rosa hybrid cultivar
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	AAF59905.1	AF197946	Glycine max
AA881682.1	AF000371	Vitis vinifera	AAF78021.1	AF238477	Oryza sativa
BAB41022.1	AB047095	Vitis vinifera	AAF91323.1	AF244889	Glycine max
BAB41020.1	AB047093	Vitis vinifera	CAB51834.1	00069	Oryza sativa
BAB41021.1	AB047094	Vitis vinifera	AA046916.1	AF164020	Oryza sativa
BAB41019.1	AB047092	Vitis vinifera	CAA08997.1	AJ010093	Brassica napus
BAA83484.1	AB031274	Scutellaria baicalensis	AAF91322.1	AF244888	Glycine max
BAB41025.1	AB047098	Vitis vinifera	CAA61510.1	X89226	Oryza sativa
BAB41023.1	AB047096	Vitis vinifera	AAF59906.1	AF197947	Glycine max
BAA90787.1	AB038248	Ipomoea batatas	AAF91324.1	AF244890	Glycine max
BAA19659.1	AB002818	Perilla frutescens	SEQ ID NO. 1578		
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	BAA24448.1	AB003516	Panax ginseng
AA836652.1	U32643	Nicotiana tabacum	CAA06770.1	AJ005928	Brassica napus
AAK28304.1	AF346432	Nicotiana tabacum	CAA06773.1	AJ005931	Brassica napus
BAB41024.1	AB047097	Vitis vinifera	CAA06223.1	AJ004923	Lycopersicon esculentum
BAB41026.1	AB047099	Vitis vinifera	SEQ ID NO. 1579		
CAA31855.1	X13500	Zea mays	AA60566.1	S68113	Brassica napus
AA886473.1	AF028237	Ipomoea purpurea	AA01800.1	AF026382	Fragaria x ananassa
CAA54614.1	X77464	Manihot esculenta	CAA59472.1	X85206	Catharanthus roseus
SEQ ID NO. 1577			BAB16431.1	AB041519	Nicotiana tabacum
AAG31141.1	AF305911	Oryza sativa	BAB16428.1	AB041516	Nicotiana tabacum
AAG31142.1	AF305912	Hordeum vulgare	BAA99575.1	AB037109	Daucus carota
CAA06334.1	AJ005077	Lycopersicon esculentum	BAA95941.1	AB035125	Nicotiana tabacum
AAD46406.1	AF096250	Lycopersicon esculentum	AAC49369.1	U34333	Phaseolus vulgaris
AAD10057.1	AF110519	Lycopersicon esculentum	AAF78903.1	AF248055	Glycine max
AAD10056.1	AF110518	Lycopersicon esculentum	BAA13150.1	D86629	Nicotiana tabacum
AAK30005.1	AY029067	Rosa hybrid cultivar			

BAA13155.1	D86721	Nicotiana tabacum	CAA47717.1	X67304	Glycine max
CAA42959.1	X60432	Zea mays	AAB81595.1	AF019614	Solanum tuberosum
AAB18205.1	U73214	Triticum aestivum	CAA64766.1	X95513	Solanum tuberosum
CAA57810.1	X82413	Asparagus officinalis	AAB31252.1	S73865	Solanum tuberosum
CAA40361.1	X57076	Lycopersicon esculentum	AA53184.1	U09026	Lycopersicon esculentum
CAA43666.1	X61395	Lycopersicon esculentum	AAB65766.1	U37839	Lycopersicon esculentum
AAD03487.1	AF028841	Medicago sativa	CAA65268.1	X96405	Solanum tuberosum
AAB33132.1	L20755	Cuscuta reflexa	AAF15296.2	AF204210	Phaseolus vulgaris
			CAA55319.1	X78581	Pisum sativum
SEQ ID NO. 1583			AAA03728.1	U04526	Glycine max
CAA49599.1	X69979	Lycopersicon esculentum	CAA34906.1	X17061	Pisum sativum
			CAA55318.1	X78580	Pisum sativum
SEQ ID NO. 1584			BAA03042.1	D13949	Glycine max
BAA88198.1	AP000837	Oryza sativa	AAA33987.1	J03211	Glycine max
BAA88195.1	AP000837	Oryza sativa	AAB71759.1	U84198	Pisum sativum
			AAB41272.1	U50081	Glycine max
SEQ ID NO. 1585			CAA39604.1	X56139	Glycine max
AAD28506.1	AF123265	Lycopersicon esculentum	AAA96817.1	U26457	Glycine max
AAB49425.1	U72489	Solanum tuberosum	AAG42354.1	AF234983	Phaseolus vulgaris
AAD28507.2	AF123266	Lycopersicon esculentum	AAG18376.1	AF283894	Zantedeschia aethiopica
			AAD39093.1	AF095895	Oryza sativa
SEQ ID NO. 1588			CAC04380.1	AJ293015	Pisum sativum
CAA65269.1	X96406	Solanum tuberosum	CAA45088.1	X63525	Phaseolus vulgaris
AAB65767.1	U37840	Lycopersicon esculentum	AAB18970.2	U76687	Phaseolus vulgaris
BAA03102.1	D14000	Oryza sativa	AAC49159.1	U36191	Glycine max
AAC12951.1	U56406	Hordeum vulgare	AAA03726.1	U04785	Glycine max
CAB94852.1	AJ404331	Prunus dulcis	CAA45086.1	X63521	Phaseolus vulgaris
AAG21691.1	AY008278	Lycopersicon esculentum			
AA79186.1	U36339	Cucumis sativus	SEQ ID NO. 1589		
AAB67858.1	U60200	Solanum tuberosum	CAB39890.1	AJ237582	Armoracia rusticana
CAA64765.1	X95512	Solanum tuberosum	CAB39158.1	AJ132906	Brassica napus
CAB33038.1	AJ271161	Cucumis sativus	CAB39159.1	AJ132905	Brassica rapa
CAA58859.1	X84040	Nicotiana tabacum	CAB39172.1	AJ132903	Raphanus sativus
AAB67865.1	U60202	Solanum tuberosum	CAB39892.1	AJ237584	Capsella bursa-pastoris
CAA55724.1	X79107	Solanum tuberosum			
AAB67860.1	U60201	Solanum tuberosum	SEQ ID NO. 1590		
CAB65460.1	Y18548	Solanum tuberosum	AAK19616.1	AF336283	Gossypium hirsutum
AAD04258.1	AF039651	Solanum tuberosum	CAA78386.1	Z13996	Petunia x hybrida
AAB81594.1	AF019613	Solanum tuberosum	CAA72218.1	Y11415	Oryza sativa
AAA33986.1	J02795	Solanum tuberosum	CAB43399.1	AJ006292	Antirrhinum majus
AAB67732.1	U50075	Glycine max	AAK19619.1	AF336286	Gossypium hirsutum
		Glycine max			

CAA50224.1	X70879	Hordeum vulgare	AAD11617.1	AF050495	Lycopersicon esculentum
CAA50222.1	X70877	Hordeum vulgare	AAA34138.1	M96324	Lycopersicon esculentum
BAA23337.1	D88617	Oryza sativa	AAD11618.1	AF050496	Lycopersicon esculentum
CAA64614.1	X95296	Lycopersicon esculentum	BAA90510.2	AF001111	Oryza sativa
CAA50221.1	X70876	Hordeum vulgare	AAF73985.1	AF096871	Zea mays
AAK19611.1	AF336278	Gossypium hirsutum	AAB58910.1	U82966	Oryza sativa
BAA81732.1	AB029161	Glycine max	CAB69823.1	AJ271438	Prunus persica
BAA81731.1	AB029160	Glycine max	CAC29436.1	AJ310524	Vicia faba
BAA81730.1	AB029159	Glycine max	AAD46188.1	AF156691	Nicotiana plumbaginifolia
CAA72185.1	Y11350	Oryza sativa	AAD46186.1	AF156679	Nicotiana plumbaginifolia
ARG13574.1	AC037425	Oryza sativa	CAA47275.1	X66737	Nicotiana plumbaginifolia
BAA81733.2	AB029162	Glycine max	AAB17186.1	U72148	Lycopersicon esculentum
BAA88221.1	AB028649	Nicotiana tabacum	AAD29712.1	AF140499	Oryza sativa
CAA78387.1	Z13997	Petunia x hybrida	CAA59800.1	X85805	Zea mays
BAA88224.1	AB028652	Nicotiana tabacum	AAB35314.2	S79323	Vicia faba
BAA23338.1	D88618	Oryza sativa	AAA34173.1	M60166	Lycopersicon esculentum
AAK19617.1	AF336284	Gossypium hirsutum	CAA54045.1	X76535	Solanum tuberosum
CAA72217.1	Y11414	Oryza sativa	AAB60276.1	U09989	Zea mays
CAA67600.1	X99210	Lycopersicon esculentum	AAB84202.2	AF029256	Kosteletzkya virginica
AAK19615.1	AF336282	Gossypium hirsutum	AAA34098.1	M80490	Nicotiana plumbaginifolia
BAA81736.1	AB029165	Glycine max	CAA59799.1	X85804	Phaseolus vulgaris
BAA88222.1	AB028650	Nicotiana tabacum	AAB41898.1	U84891	Mesembryanthemum crystallinum
AAB41101.1	U72762	Nicotiana tabacum	AAD55399.1	AF179442	Lycopersicon esculentum
BAA88223.1	AB028651	Nicotiana tabacum	AAF98344.1	AF275745	Lycopersicon esculentum
AAK19618.1	AF336285	Gossypium hirsutum	CAA54046.1	X76536	Solanum tuberosum
CAA72186.1	Y11351	Oryza sativa	AAA34052.1	M27888	Nicotiana plumbaginifolia
CAA66952.1	X98308	Lycopersicon esculentum	CAB69824.1	AJ271439	Prunus persica
AAF22256.1	AF161711	Pimpinella brachycarpa	AAA34094.1	M80489	Nicotiana plumbaginifolia
CAA64615.1	X95297	Lycopersicon esculentum	BAA06629.1	D31843	Oryza sativa
CAA67575.1	X99134	Lycopersicon esculentum	AAB49042.1	U54690	Dunaliella acidophila
AAA19821.1	L19495	Zea mays	AAK31799.1	AY029190	Lilium longiflorum
CAA65525.1	X96749	Oryza sativa	CAC29435.1	AJ310523	Vicia faba
AAA33500.1	M73028	Zea mays	BAA37150.1	AB022442	Vicia faba
BAA23339.1	D88619	Oryza sativa	BAA01058.1	D10207	Oryza sativa
SEQ ID NO. 1594			CAB85494.1	AJ132891	Medicago truncatula
AAG28435.1	AF195028	Glycine max	CAB85495.1	AJ132892	Medicago truncatula
AAG28436.1	AF195029	Glycine max	AAD46187.1	AF156683	Nicotiana plumbaginifolia
CAA68234.1	X99972	Brassica oleracea	BAA08134.1	D45189	Zostera marina
AAD31896.1	AF145478	Mesembryanthemum crystallinum	CAA52107.1	X73901	Dunaliella bioculata
CAA63790.1	X93592	Dunaliella bioculata	AAA34099.1	M80491	Nicotiana plumbaginifolia
			AAA20601.1	U08985	Zea mays

AAA20600.1	U08984	Zea mays	BAA89584.1	AP001073	Oryza sativa
AAF97591.1	AF263917	Lycopersicon esculentum	AAD11481.1	U51191	Glycine max
AAA81348.1	U38965	Vicia faba	AAD11482.1	U51192	Glycine max
			BAA03644.1	D14997	Oryza sativa
			CAB67121.1	Y19023	Lycopersicon esculentum
SEQ ID NO. 1595		Mesembryanthemum crystallinum	CAA50597.1	X71593	Lycopersicon esculentum
AAC36697.1	AF075579	Nicotiana tabacum	AAA34108.1	J02979	Nicotiana tabacum
CAC10358.1	AJ277086	Fagus sylvatica	BAA06335.1	D30653	Populus kitakamiensis
CAB90633.1	AJ277743	Lotus japonicus	CAA40796.1	X57564	Armoracia rusticana
AAD17804.1	AF092431	Nicotiana tabacum	BAA94962.1	AB042103	Asparagus officinalis
CAC10359.1	AJ277087	Fagus sylvatica	BAA01992.1	D11396	Nicotiana tabacum
CAC09575.1	AJ298987	Medicago sativa	CAA66035.1	X97349	Populus balsamifera subsp.
CAA72341.1	Y11607	Lotus japonicus	trichocarpa		
AAD17805.1	AF092432	Zea mays	CAC21393.1	AJ401276	Zea mays
AAG43835.1	AF213455	Mesembryanthemum crystallinum	BAA08499.1	D49551	Oryza sativa
AAC36698.1	AF075580	Mesembryanthemum crystallinum	BAA77387.1	AB024437	Scutellaria baicalensis
AAC36700.1	AF075582	Mesembryanthemum crystallinum	CAA59485.1	X85228	Triticum aestivum
AAC36699.1	AF075581	Mesembryanthemum crystallinum	BAA11853.1	D83225	Populus nigra
AAD11430.1	AF097667	Fagus sylvatica	BAA01877.1	D11102	Populus kitakamiensis
CAB90634.1	AJ277744	Mesembryanthemum crystallinum	BAA14144.1	D90116	Armoracia rusticana
AAC35951.1	AF079355	Zea mays	AAB47602.1	L07554	Linum usitatissimum
AB93832.1	U81960	Oryza sativa	BAA06334.1	D30652	Populus kitakamiensis
AAC26828.1	AF075603	Fagus sylvatica	CAC21391.1	AJ401274	Zea mays
CAC09576.1	AJ298988		AAB41811.1	L36157	Medicago sativa
		Arachis hypogaea	BAA92500.1	AP001383	Oryza sativa
SEQ ID NO. 1596		Lycopersicon esculentum	BAA14143.1	D90115	Armoracia rusticana
AAA32676.1	M37637	Nicotiana tabacum	CAA80502.1	Z22920	Spirodela polyrrhiza
CAA64413.1	X94943	Stylosanthes humilis	CAA62225.1	X90692	Medicago sativa
BAA82307.1	AB027753	Phaseolus vulgaris	CAA66036.1	X97350	Populus balsamifera subsp.
AAB67737.1	L77080	Spinacia oleracea	trichocarpa		
AAD37429.2	AF149279	Glycine max	CAA62226.1	X90693	Medicago sativa
CAA71494.1	Y10468	Populus balsamifera subsp.			
AAD37375.1	AF145349		SEQ ID NO. 1597		
CAA66037.1	X97351		CAB08111.1	Z94180	Lycopersicon esculentum
trichocarpa			CAA81558.1	Z26949	Solanum tuberosum
AA65637.1	L13654	Lycopersicon esculentum	AAC72195.1	AF069911	Zea mays
AAF63024.1	AF244921	Spinacia oleracea	AAG43499.1	AF209924	Lycopersicon esculentum
AAD37430.1	AF149280	Phaseolus vulgaris	AAA97411.1	U51918	Pisum sativum
BAA07664.1	D42065	Nicotiana tabacum	CAA10992.1	AJ222787	Hordeum vulgare
BAA07663.1	D42064	Nicotiana tabacum			
CAB94692.1	AJ242742	Ipomoea batatas			
BRA90365.1	AP001081	Oryza sativa			

CAA06309.1	AJ005042	Cicer arietinum	AAC97494.1	AF079232	Lycopersicon esculentum
CAA54525.1	X77319	Asparagus officinalis	AAB67993.1	U73746	Gossypium hirsutum
AAF67342.1	AJ229795	Vigna radiata	AAD24540.1	AF113545	Nicotiana tabacum
CAA10128.1	AJ012687	Cicer arietinum	AAB67994.1	U73747	Gossypium hirsutum
AAB61470.1	AF004812	Mangifera indica	AAA79922.1	U19941	Fragaria x ananassa
AAC77377.1	AF064786	Carica papaya	CAA75213.1	Y14972	Nicotiana tabacum
AAF21626.1	AF023847	Lycopersicon esculentum	CAAF6769.1	Y17502	Nicotiana tabacum
CAA10174.1	AJ012797	Lycopersicon esculentum	AAC97493.1	AF079231	Lycopersicon esculentum
CAA10175.1	AJ012798	Lycopersicon esculentum	CAA75214.1	Y14973	Nicotiana tabacum
AAF70821.1	AF154420	Lycopersicon esculentum	CAA76770.1	Y17503	Nicotiana tabacum
AAC25984.1	AF020390	Lycopersicon esculentum	CAB92956.1	AJ401032	Solanum tuberosum
CAA59162.1	X84684	Brassica oleracea	AAB71830.1	AF006197	Lavatera thuringiaca
CAA10173.1	AJ012796	Lycopersicon esculentum	CAA66900.2	X98244	Zea mays
AAF70822.1	AF154421	Lycopersicon esculentum	CAA52903.1	X74947	Medicago sativa
BAB21492.1	AB046543	Pyrus pyrifolia	CAA75308.1	Y15036	Medicago truncatula
CAA09457.1	AJ011010	Cicer arietinum	CAA66901.1	X98245	Zea mays
AAF67341.1	AF229794	Vigna radiata	AAG32468.1	AF308589	Ceratopteris richardii
CAA07236.1	AJ006771	Cicer arietinum	CAA72183.1	Y11348	Medicago sativa
CAA10064.1	AJ012578	Carica papaya	AAG32467.1	AF308588	Ceratopteris richardii
AAC28739.1	AF079874	Carica papaya	SEQ ID NO. 1604		
AAG12249.1	AF184080	Prunus armeniaca	AAK17067.1	AF254558	Oryza sativa
CAA06310.1	AJ005043	Cicer arietinum	BAA89800.1	AB028185	Oryza sativa
AAD45349.1	AF159124	Vitis vinifera	BAA89799.1	AB028184	Oryza sativa
SEQ ID NO. 1602			BAA89798.1	AB028183	Oryza sativa
AAA86950.1	U10044	Pisum sativum	BAA89797.1	AB028182	Oryza sativa
AAA86952.1	U10046	Pisum sativum	BAA89801.1	AB028186	Oryza sativa
CAA50035.1	X70702	Pisum sativum	AAF68626.1	AF254124	Medicago truncatula
AAA86951.1	U10045	Pisum sativum	BAA89802.1	AB028187	Oryza sativa
BAA96367.1	AB043975	Panax ginseng	BAA78417.1	AB021178	Nicotiana tabacum
CAB57298.1	Z30162	Solanum tuberosum	SEQ ID NO. 1606		
CAA48289.1	X68202	Pyrobotrys stellata	AAD09209.1	U38247	Glycine soja
AAA86949.1	U10043	Pisum sativum	AAG37440.1	AY007600	Glycine max
SEQ ID NO. 1603			AAG37451.1	AY007611	Glycine tomentella
AAF01250.1	AF188832	Fragaria x ananassa	AAG15418.1	AY007515	Glycine tomentella
AAC33305.1	U89609	Gossypium hirsutum	AAG15412.1	AY007506	Glycine tomentella
CAA06492.1	AJ005347	Cicer arietinum	AAG37441.1	AY007601	Glycine tabacina
CAA63710.1	X93308	Capsicum annuum	AAG37443.1	AY007603	Glycine tomentella
CAA10261.1	AJ130956	Capsicum annuum	AAG37444.1	AY007604	Glycine tomentella
CAA10210.1	AJ130829	Capsicum annuum	AAG15415.1	AY007510	Glycine tabacina

AAG37438.1	AY007598	Glycine canescens	AAD02257.1	AF043091	Hordeum vulgare
AAG15416.1	AY007511	Glycine tomentella	CAC34554.1	Y07600	Pistacia vera
AAG37448.1	AY007608	Glycine tomentella	AAF01698.1	AF181460	Hordeum vulgare
AAE91486.1	AF287476	Glycine tomentella	AAD02256.1	AF043090	Hordeum vulgare
AAG37446.1	AY007606	Glycine tomentella	AAD02261.1	AF043095	Hordeum vulgare
AAG37445.1	AY007605	Glycine tomentella	CAA33361.1	X15287	Hordeum vulgare
AAG37452.1	AY007612	Glycine tomentella	CAA44787.1	X63061	Pisum sativum
AAG15413.1	AY007507	Glycine tomentella	AAD02258.1	AF043092	Hordeum vulgare
AAG37442.1	AY007602	Glycine tabacina	CAA44788.1	X63062	Pisum sativum
AAG37447.1	AY007607	Glycine tomentella	AAF60172.1	AF236067	Elaeis guineensis
AAG15417.1	AY007514	Glycine tomentella	CAA44789.1	X63063	Pisum sativum
AAD09208.1	U38246	Glycine soja	AAD02252.1	AF043086	Hordeum vulgare
AY007599	AAG37439.1	Glycine canescens	AAF01699.1	AF181461	Hordeum vulgare
AY007509	AAG15414.1	Glycine tabacina	AAF01692.1	AF181454	Hordeum vulgare
AY007609	AAG37449.1	Glycine tomentella	AAB51381.1	U91970	Pisum sativum
AY007610	AAG37450.1	Glycine tomentella	CAA51278.1	X72748	Hordeum vulgare
AY007614	ARG37454.1	Glycine tomentella	AAF01695.1	AF181457	Hordeum vulgare
AY007613	AAG37453.1	Glycine tomentella	CAA33360.1	X15286	Hordeum vulgare
X59700	CAA42221.1	Helianthus annuus	AAF01691.1	AF181453	Hordeum vulgare
U72767	AAC49862.1	Phaseolus vulgaris	AAD02255.1	AF043089	Hordeum vulgare
X13202	CAA31590.1	Gossypium hirsutum	SEQ ID NO. 1612		Phaseolus vulgaris
AY007517	ARG12980.1	Glycine tomentella	AAB36543.1	U77935	
AY007518	AAG12981.1	Glycine tomentella	SEQ ID NO. 1614		Vicia sativa
AY007519	AAG12982.1	Glycine tomentella	AAD10204.1	AF030260	Vicia sativa
AY007516	AAG12979.1	Glycine tomentella	AAG33645.1	AF092917	Triticum aestivum
L47607	AAB01552.1	Picea glauca	AAG17470.1	AF123609	Brassica rapa subsp. pekinensis
AF004810	AAD01541.1	Glycine max	AAK31592.1	AY029178	Catharanthus roseus
X64145	CAA45506.1	Lemna gibba	CAB41474.1	AJ238402	Glycine max
SEQ ID NO. 1609		Lophopyrum elongatum	AAB94586.1	AF022457	Glycine max
AAC05921.1	AF031247	Prunus persica	AAB94588.1	AF022459	Pisum sativum
CAC00637.1	AJ271620	Hordeum vulgare	CAA89260.1	Z49263	Pisum sativum
AAD02262.1	AF043096	Hordeum vulgare	AAG09208.1	AF175278	Pisum sativum
AAA32952.1	M95810	Hordeum vulgare	AAC49188.2	U29333	Pisum sativum
AAF01693.1	AF181455	Hordeum vulgare	CAA04117.1	AJ000478	Helianthus tuberosus
AAC49658.1	U62486	Prunus persica	CAA04116.1	AJ000477	Helianthus tuberosus
AAC49657.1	U34809	Prunus persica	BAA22423.1	AB001380	Glycyrrhiza echinata
AAD50291.1	AF172263	Prunus dulcis	BAA74466.1	AB022733	Glycyrrhiza echinata
AAC05923.1	AF031249	Lophopyrum elongatum	AAA17732.1	L19074	Catharanthus roseus
AAC05924.1	AF031250	Lophopyrum elongatum	BAA93634.1	AB025016	Lotus japonicus
AAF01694.1	AF181456	Hordeum vulgare			



AAE27282.1	AF122821	Capsicum annuum	CAA26229.1	X02382	Zea mays
CAB43505.1	AJ239051	Cicer arietinum	CAA26247.1	X02400	Zea mays
CAB50648.1	X71657	Solanum melongena	CAA46017.1	X64770	Oryza sativa
BAA84072.1	AB028152	Torenia hybrida	CAB38022.1	AJ132000	Craterostigma plantagineum
BAA76380.1	AB023636	Glycyrrhiza echinata	CAA78747.1	Z15028	Oryza sativa
CAA72208.1	Y11404	Zea mays	AAF85966.1	AF263384	Saccharum officinarum
X81829	X81829	Zea mays	CAA46701.1	X65871	Hordeum vulgare
CAA57423.1	X81829	Coptis japonica	CAA04543.1	AJ001117	Triticum aestivum
BAB12433.1	AB025030		BAA88904.1	AB022091	Citrus unshiu
			BAA88981.1	AB025778	Citrus unshiu
SEQ ID NO. 1620			CAA04512.1	AJ001071	Pisum sativum
CAA41774.1	X59046	Oryza sativa	CAA76057.1	Y16091	Daucus carota
BAA89049.1	AB029401	Citrus unshiu	CAB38021.1	AJ131999	Craterostigma plantagineum
AAA34196.1	L19762	Lycopersicon esculentum	CAA57499.1	X81974	Beta vulgaris
BAA88905.1	AB022092	Citrus unshiu	CAA47264.1	X66728	Hordeum vulgare
AAD28641.1	U73588	Gossypium hirsutum			
CAA49428.1	X69773	Vicia faba			
CAA09681.1	AJ011535	Lycopersicon esculentum	SEQ ID NO. 1621		
AAA97572.1	U24088	Solanum tuberosum	AAB69317.1	AF012861	Petroselinum crispum
CAA09593.1	AJ011319	Lycopersicon esculentum	AAF87216.1	AF231351	Nicotiana tabacum
CAB40794.1	AJ131943	Medicago truncatula	CAA67782.1	X99405	Nicotiana tabacum
AAC17867.1	AF049487	Medicago sativa	CAB52708.1	AJ010712	Solanum tuberosum
CAB40795.1	AJ131964	Medicago truncatula	CAB52685.1	AJ132346	Dunaliella bioculata
CAA65640.1	X96939	Tulipa gesneriana	CAA58775.1	X83923	Solanum tuberosum
AAA97571.1	U24087	Solanum tuberosum	CAA03941.1	AJ000184	Spinacia oleracea
CAA63122.1	X92378	Alnus glutinosa	CAA03939.1	AJ000182	Spinacia oleracea
AAA33514.1	L22296	Zea mays	CAA04994.1	AJ001772	Nicotiana tabacum
CAA65639.1	X96938	Tulipa gesneriana	CAA03940.1	AJ000183	Spinacia oleracea
AAC41682.1	L03366	Oryza sativa	AAD11426.1	AF097663	Mesembryanthemum crystallinum
CAA75793.1	Y15802	Hordeum vulgare	AAB41552.1	U18238	Medicago sativa subsp. sativa
CAA49551.1	X69931	Hordeum vulgare	CAA52442.1	X74421	Solanum tuberosum
CAA76056.1	Y16090	Daucus carota	AAB69318.1	AF012862	Petroselinum crispum
CAA53081.1	X75332	Daucus carota	AAB69319.1	AF012863	Petroselinum crispum
AAA33515.1	L33244	Zea mays	CAA04992.1	AJ001769	Nicotiana tabacum
BAB20799.1	AB045710	Pyrus pyrifolia	CAA04993.1	AJ001770	Nicotiana tabacum
CAA03935.1	AJ000153	Triticum aestivum	BAA97662.1	AB029454	Triticum aestivum
AAC39323.1	AF030231	Glycine max	BAA97663.1	AB029455	Triticum aestivum
BAA01108.1	D10266	Vigna radiata	BAA97664.1	AB029456	Triticum aestivum
CAA09110.1	AJ012080	Pisum sativum	AAG23802.1	AF260736	Cucurbita pepo
AAC28107.1	AF079851	Pisum sativum	CAB66330.1	AJ279688	Betula pendula
CAC32462.1	AJ311496	Pisum sativum	BAA82155.1	AB011441	Triticum aestivum
CAA57881.1	X82504	Chenopodium rubrum	CAA06200.1	AJ004900	Glycine max

[illegible]

SEQ ID NO. 1627	AAF74566.1	AF215852	Nicotiana tabacum	CAC35328.1	AJ310153	Linum usitatissimum
	AAF74567.1	AF215853	Solanum tuberosum	CAC35325.1	AJ310150	Linum usitatissimum
	AAF74568.1	AF215854	Zea mays	CAC35332.1	AJ310157	Linum usitatissimum
	AAF74565.1	AF215851	Spinacia oleracea	CAC35336.1	AJ310161	Linum usitatissimum
				CAC35338.1	AJ310163	Linum usitatissimum
				CAC35321.1	AJ310150	Linum usitatissimum
				CAC35326.1	AJ310151	Linum usitatissimum
				CAC35339.1	AJ310164	Linum usitatissimum
				CAC35329.1	AJ310154	Linum usitatissimum
				CAC35323.1	AJ310150	Linum usitatissimum
				CAC35331.1	AJ310156	Linum usitatissimum
				CAC35327.1	AJ310152	Linum usitatissimum
				AAF61452.1	AF139523	Tagetes erecta
				AAK28811.1	AF310966	Linum usitatissimum
SEQ ID NO. 1630	CAA08798.1	AJ009720	Solanum tuberosum	SEQ ID NO. 1631		
	CAA08797.1	AJ009719	Solanum tuberosum	AAF20002.1	AF213936	Prunus dulcis
	AAG43546.1	AF211528	Nicotiana tabacum	AAD01600.1	AF016713	Lycopersicon esculentum
	AAG09951.1	AF175388	Glycine max	AAC32034.1	AF023472	Hordeum vulgare
	AAK28808.1	AF310961	Linum usitatissimum	AAF07875.1	AF140606	Oryza sativa
	AAK28805.1	AF310960	Linum usitatissimum	CAC07206.1	AJ278966	Brassica napus
	AAK28803.1	AF310958	Linum usitatissimum	AAD16016.1	AF0800545	Nepenthes alata
	AAK50763.1	U15605	Nicotiana glutinosa	AAB69642.1	AF0000392	Lotus japonicus
	AAK28809.1	AF310962	Linum usitatissimum	CAA93316.1	Z69370	Cucumis sativus
	AAK28804.1	AF310959	Linum usitatissimum	BAB19760.1	AB052788	Glycine max
	AAG09954.1	AF175399	Glycine max	BAB19757.1	AB052785	Glycine max
	AAD25966.1	AF093639	Linum usitatissimum	BAB19756.1	AB052784	Glycine max
	AAD25974.1	AF093647	Linum usitatissimum	AAD42860.1	AF154930	Prunus dulcis
	AAK91021.1	U27081	Linum usitatissimum	SEQ ID NO. 1632		
	AAD25968.1	AF093641	Linum usitatissimum	AAD43561.1	AF155124	Gossypium hirsutum
	AAK91022.1	U27081	Linum usitatissimum	AAF63027.1	AF244924	Spinacia oleracea
	AAD25969.1	AF093642	Linum usitatissimum	BAA92500.1	AP001383	Oryza sativa
	AAK01051.1	AF175394	Glycine max	BAA94962.1	AB042103	Asparagus officinalis
	AAD25975.1	AF093648	Linum usitatissimum	AAB97734.1	AF014502	Glycine max
	AAK01052.1	AF175395	Glycine max	CAA59487.1	X85230	Triticum aestivum
	AAD25965.1	AF093638	Linum usitatissimum	AAC05277.1	AF049881	Linum usitatissimum
	AAD25976.1	AF093649	Linum usitatissimum	BAA08499.1	D49551	Oryza sativa
	AAD25972.1	AF093645	Linum usitatissimum	AAF63026.1	AF244923	Spinacia oleracea
	AAD25971.1	AF093644	Linum usitatissimum	AAD37430.1	AF149280	Phaseolus vulgaris
	AAD25970.1	AF093643	Linum usitatissimum	BAA11853.1	D83225	Populus nigra
	AAD25967.1	AF093640	Linum usitatissimum			
	AAD25973.1	AF093646	Linum usitatissimum			
	AAK01053.1	AF175396	Glycine max			
	CAC35330.1	AJ310155	Linum usitatissimum			
	CAC35337.1	AJ310162	Linum usitatissimum			
	AAB47618.1	U73916	Linum usitatissimum			
	CAC35334.1	AJ310159	Linum usitatissimum			
	CAC35333.1	AJ310158	Linum usitatissimum			

CAA66037.1	X97351	Populus balsamifera subsp.	SEQ ID NO. 1633	
trichocarpa				Cucumis sativus
BAA82306.1	AB027752	Nicotiana tabacum	BAA85819.1	AB026500
CAB94692.1	AJ242742	Ipomoea batatas	AAD31396.1	AF118843
BAA92497.1	AP001383	Oryza sativa	AAC31213.3	AF026267
BAA92422.1	AP001366	Oryza sativa	BAB13718.1	AB040406
CAA40796.1	X57564	Armoracia rusticana	AAD31397.1	AF118844
BAA06335.1	D30653	Populus kitakamiensis	AAD37577.1	AF141929
AAB48184.1	L24120	Linum usitatissimum	AAC31123.1	AF032448
CAA66034.1	X97348	Populus balsamifera subsp.	AAD37576.1	AF141928
trichocarpa			AAB97160.1	AF022727
CAB65334.1	AJ250121	Picea abies	AAC02213.1	AF043084
CAA62597.1	X91172	Raphanus sativus	AAA85479.1	U41103
CAA66036.1	X97350	Populus balsamifera subsp.	AAF28893.1	AF124527
trichocarpa			BAA37136.1	AB015496
AAF63025.1	AF244922	Spinacia oleracea	AAC39497.1	AF047476
CAA66035.1	X97349	Populus balsamifera subsp.	AAF61919.1	AF227742
trichocarpa			AAC02214.1	AF043085
AAC98519.1	AF007211	Glycine max	BAB18937.1	AB052228
AAB06183.1	M37636	Arachis hypogaea	BAA85817.1	AB026498
BAA84764.1	D84400	Oryza sativa	AAB39386.1	U47279
AAC49819.1	AF014468	Oryza sativa	AAD03598.1	AF098272
CAA71492.1	Y10466	Spinacia oleracea	AAB72193.1	AF013979
CAA71493.1	Y10467	Spinacia oleracea	AAB94773.1	AF039746
BAA06334.1	D30652	Populus kitakamiensis	CAA06723.1	AJ005829
BAA11852.1	D83224	Populus nigra	AAD26899.1	AF055894
BAA77389.1	AB024439	Scutellaria baicalensis	BAA37137.1	AB015497
CAA62615.1	X91232	Mercurialis annua	BAA85818.1	AB026499
AAD37427.1	AF149277	Phaseolus vulgaris	AAD12777.1	AF051938
CAA62226.1	X90693	Medicago sativa	AAB96765.2	AF039921
BAA92967.1	AP001551	Oryza sativa	AAF08300.1	AF113748
AAB02554.1	L37790	Stylosanthes humilis	AAG41977.1	AF311942
CAA62227.1	X90694	Medicago sativa	AAD38057.1	AF154119
BAA14143.1	D90115	Armoracia rusticana	AAC31157.1	AF047477
AAC49821.1	AF014470	Oryza sativa	CAA69646.1	Y08359
BAA07241.1	D38051	Populus kitakamiensis	AAB68819.1	U63291
CAB99487.1	AJ276227	Hordeum vulgare	BAA96745.1	AB035806
CAA50597.1	X71593	Lycopersicon esculentum	CAB76929.1	AJ276294
BAA03911.1	D16442	Oryza sativa	BAA90551.1	AB031028
CAB67121.1	Y19023	Lycopersicon esculentum	BAA90552.1	AB031029
			SEQ ID NO. 1634	
				Cucumis sativus
				Lycopersicon esculentum
				Nicotiana tabacum
				Zea mays
				Lycopersicon esculentum
				Pelargonium x hortorum
				Malus x domestica
				Pelargonium x hortorum
				Nicotiana tabacum
				Lycopersicon esculentum
				Lycopersicon esculentum
				Prunus persica
				Passiflora edulis
				Brassica oleracea
				Mangifera indica
				Lycopersicon esculentum
				Cucumis melo var. reticulatus
				Cucumis sativus
				Lycopersicon esculentum
				Vigna radiata
				Oryza sativa
				Pisum sativum
				Pisum sativum
				Phalaenopsis sp. 'True Lady'
				Passiflora edulis
				Cucumis sativus
				Solanum tuberosum
				Nicotiana tabacum
				Musa acuminata
				Carica papaya
				Rosa hybrid cultivar
				Brassica oleracea
				Rumex palustris
				Rumex palustris
				Dianthus caryophyllus
				Citrus sinensis
				Prunus mume
				Prunus mume

CAB90633.1	AJ277743	Fagus sylvatica	AAG34836.1	AF244693	Zea mays
CAC10358.1	AJ277086	Nicotiana tabacum	AAG34837.1	AF244694	Zea mays
CAC10359.1	AJ277087	Nicotiana tabacum	AAG34800.1	AF243365	Glycine max
CAC09575.1	AJ298987	Fagus sylvatica	AAC18566.1	AF048978	Glycine max
AAC36697.1	AF075579	Mesembryanthemum crystallinum	AAC32118.1	AF051214	Picea mariana
AAD17804.1	AF092431	Lotus japonicus	AAF22517.1	AF118924	Papaver somniferum
CAA72341.1	Y11607	Medicago sativa	AAF22518.1	AF118925	Papaver somniferum
AAD17805.1	AF092432	Lotus japonicus	AAG34806.1	AF243371	Glycine max
AAC36698.1	AF075580	Mesembryanthemum crystallinum	CAA04391.1	AJ000923	Carica papaya
AAG43835.1	AF213455	Zea mays	AAG34833.1	AF244690	Zea mays
AAC36699.1	AF075581	Mesembryanthemum crystallinum	CAA71784.1	Y10820	Glycine max
AAC36700.1	AF075582	Mesembryanthemum crystallinum	AAG34847.1	AF244704	Zea mays
CAB90634.1	AJ277744	Fagus sylvatica	AAF22519.1	AF118926	Papaver somniferum
AAD11430.1	AF097667	Mesembryanthemum crystallinum	SEQ ID NO. 1636		
AAB93832.1	U81960	Zea mays	AAD37699.1	AF145730	Oryza sativa
AAC35951.1	AF079355	Mesembryanthemum crystallinum	BAA93461.1	AB028073	Physcomitrella patens
AAC26828.1	AF075603	Oryza sativa	AAF01765.1	AF184278	Glycine max
CAC09576.1	AJ298988	Fagus sylvatica	AAF01764.2	AF184277	Glycine max
SEQ ID NO. 1635			BAA93466.1	AB028078	Physcomitrella patens
AAG34803.1	AF243368	Glycine max	CAB67118.1	Y17306	Physcomitrella patens
AAG34798.1	AF243363	Glycine max	AAF73482.1	AF268422	Lycopersicon esculentum
AAF64450.1	AF239928	Euphorbia esula	AAD37697.1	AF145728	Brassica rapa subsp. pekinensis
AAG34807.1	AF243372	Glycine max	BAA21017.1	D26578	Oryza sativa
AAG34796.1	AF243361	Glycine max	BAA05624.1	D26575	Daucus carota
AAG34797.1	AF243362	Glycine max	BAA93460.1	AB028072	Daucus carota
AAG34801.1	AF243366	Glycine max	BAA93464.1	AB028076	Physcomitrella patens
AAG34804.1	AF243369	Glycine max	BAA93467.1	AB028079	Physcomitrella patens
ARG34809.1	AF243374	Glycine max	BAA93465.1	AB028077	Physcomitrella patens
ARG34808.1	AF243373	Glycine max	BAA05625.1	D26576	Daucus carota
AAG34810.1	AF243375	Glycine max	BAA93468.1	AB028080	Physcomitrella patens
AAG34844.1	AF244701	Zea mays	BAA05623.1	D26574	Daucus carota
AAG34805.1	AF243370	Glycine max	BAA05622.1	D26573	Daucus carota
AAG34831.1	AF244688	Zea mays	AAD37698.1	AF145729	Oryza sativa
ARG34832.1	AF244689	Zea mays	CAA64221.1	X94449	Pimpinella brachycarpa
AAG34849.1	AF244706	Zea mays	CAA64152.1	X94375	Pimpinella brachycarpa
AAG34802.1	AF243367	Glycine max	CAA64491.1	X95193	Pimpinella brachycarpa
CAA09187.1	AJ010448	Alopecurus myosuroides	BAA93463.1	AB028075	Physcomitrella patens
AAG34829.1	AF244686	Zea mays	CAA06728.1	AJ005833	Craterostigma plantagineum
CAA09188.1	AJ010449	Alopecurus myosuroides	AAD37695.1	AF145726	Oryza sativa
AAA68430.1	J03679	Solanum tuberosum	CAA65456.2	X96681	Oryza sativa

AAAF19980.1	AF2111193	Oryza sativa	CAA30261.1	X07280	Nicotiana plumbaginifolia
AAAK31270.1	AC079890	Oryza sativa	AAD10384.1	U72253	Oryza sativa
CAAA63222.1	X92489	Glycine max	AAAB8794.1	U01900	Solanum tuberosum
CAAA06717.1	AJ005820	Craterostigma plantagineum	AAA32939.1	M62907	Hordeum vulgare
			AAAC14399.1	AF030771	Hordeum vulgare
			AAA87456.1	U22147	Hevea brasiliensis
SEQ ID NO. 1637			AAAD10381.1	U72250	Oryza sativa
AAD16016.1	AF080545	Nepenthes alata	AAD33881.1	AF141654	Nicotiana tabacum
			AAA03617.1	M80604	Lycopersicon esculentum
SEQ ID NO. 1638			CAB38443.1	AJ133470	Hevea brasiliensis
CAA65987.2	X97322	Pisum sativum	AAA63542.1	M59443	Nicotiana tabacum
BAA07209.1	D38012	Oryza sativa	AAA63539.1	M60402	Nicotiana tabacum
			AAA63541.1	M59442	Nicotiana tabacum
SEQ ID NO. 1639			AAA63540.1	M60403	Nicotiana tabacum
AAC49528.1	U56834	Petroselinum crispum	CAA37289.1	X53129	Phaseolus vulgaris
AAD27591.1	AF121354	Petroselinum crispum	CAA57255.1	X81560	Nicotiana tabacum
BAA77358.1	AB020023	Nicotiana tabacum	CAB91554.1	AJ277900	Vitis vinifera
AAD16139.1	AF096299	Nicotiana tabacum	AAA19111.1	U01902	Solanum tuberosum
AAC49527.1	U48831	Petroselinum crispum	AAAB6541.1	AF030166	Oryza sativa
CAA88326.1	Z48429	Avena fatua	AAC39322.1	U96096	Hordeum vulgare
AAC49529.1	U58540	Petroselinum crispum	AAD33880.1	AF141653	Nicotiana tabacum
AAD16138.1	AF096298	Nicotiana tabacum			
AAC37515.1	L41134	Cucumis sativus	SEQ ID NO. 1641		
CAA88331.1	Z48431	Avena fatua	AAAF97510.1	AF246266	Lycopersicon esculentum
AAAF61864.1	AF193771	Nicotiana tabacum	AAD30549.1	AF136580	Lycopersicon esculentum
BAA87069.1	AB035271	Matricaria chamomilla	AAAF97509.1	AF246266	Lycopersicon esculentum
AAAF61863.1	AF193770	Nicotiana tabacum	AAD30548.1	AF136579	Lycopersicon esculentum
			AAAC17441.1	AF065444	Pisum sativum
SEQ ID NO. 1640			AAAF61374.1	AF133267	Thlaspi caerulescens
AAD10386.1	U72255	Oryza sativa	AAG09635.1	AY007281	Medicago truncatula
BAA89481.1	AB029462	Salix gilgiana			
CAB85903.1	AJ251646	Pisum sativum	SEQ ID NO. 1642		
CAA49513.1	X69887	Brassica napus	AAG43549.1	AF211531	Nicotiana tabacum
AAB82772.2	AF001523	Musa acuminata	AAG43548.1	AF211530	Nicotiana tabacum
AAAF08679.1	AF004838	Musa acuminata	CAB96899.1	AJ251249	Catharanthus roseus
CAA82271.1	Z28697	Nicotiana tabacum	CAB96900.1	AJ251250	Catharanthus roseus
AAA18928.1	U01901	Solanum tuberosum	AAAF63205.1	AF245119	Mesembryanthemum crystallinum
AAC19114.1	AF067863	Solanum tuberosum	BAB16083.1	AB036883	Oryza sativa
AAA90953.1	U30323	Triticum aestivum	BAB03248.1	AB037183	Oryza sativa
AAA03618.1	M80608	Lycopersicon esculentum	CAC12822.1	AJ299252	Nicotiana tabacum
AAA51643.1	M23120	Nicotiana plumbaginifolia	BAA07321.1	D38123	Nicotiana tabacum
AAA34078.1	M63634	Nicotiana plumbaginifolia			

AAE23899.1	AF193803	Oryza sativa	AAC32034.1	AF023472	Hordeum vulgare
AAG43545.1	AF211527	Nicotiana tabacum	AAD01600.1	AF016713	Lycopersicon esculentum
AAC62619.1	AF057373	Nicotiana tabacum	AAF07875.1	AF140606	Oryza sativa
SEQ ID NO. 1643			AAF20002.1	AF213936	Prunus dulcis
AAA74360.1	I33912	Zea mays	CAC07206.1	AJ278966	Brassica napus
AAC05981.1	AF049706	Chloroplast Glycine max	BAB19760.1	AB052788	Glycine max
AAC05983.1	AF049708	Glycine max	BAB19757.1	AB052785	Glycine max
BAA11417.1	D78573	Oryza sativa	BAB19756.1	AB052784	Glycine max
AAA74361.1	I33913	Zea mays	AAB69642.1	AF000392	Lotus japonicus
AAA16972.1	L11529	Daucus carota	CAA93316.1	Z69370	Cucumis sativus
AAD41796.1	AF135862	Glycine max	AAD16016.1	AF080545	Nepenthes alata
BAA95630.1	AB042521	Oryza sativa	AAD42860.1	AF154930	Prunus dulcis
SEQ ID NO. 1644			SEQ ID NO. 1646		
AAG43545.1	AF211527	Nicotiana tabacum	AAD00829.1	U96736	Selaginella lepidophylla
AAF63205.1	AF245119	Mesembryanthemum crystallinum	SEQ ID NO. 1647		
BAA07321.1	D38123	Nicotiana tabacum	AAC49326.1	U19924	Zinnia elegans
BAA97122.1	AB016264	Nicotiana sylvestris	AAA21135.1	U13256	Nicotiana alata
BAA87068.1	AB035270	Matricaria chamomilla	CAA10130.1	AJ012689	Cicer arietinum
BAA97124.1	AB016266	Nicotiana sylvestris	AAF82615.1	AF157011	Prunus dulcis
CAB96900.1	AJ251250	Catharanthus roseus	AAG09465.1	AF227522	Prunus dulcis
CAB96899.1	AJ251249	Catharanthus roseus	BAA08475.1	D49529	Pyrus pyrifolia
AAC62619.1	AF057373	Nicotiana tabacum	AAC49325.1	U19923	Zinnia elegans
BAA97123.1	AB016265	Nicotiana sylvestris	CAA55896.1	X79338	Lycopersicon esculentum
AAC24587.1	AF071893	Prunus armeniaca	CAB40355.1	Y17446	Lycopersicon esculentum
CAC12822.1	AJ299252	Nicotiana tabacum	CAB40353.1	Y17444	Lycopersicon esculentum
AAF76898.1	AF274033	Atriplex hortensis	CAA55895.1	X79337	Lycopersicon esculentum
AAD00708.1	U91857	Stylosanthes hamata	AAB58719.1	AF000940	Hordeum vulgare
BAA76734.1	AB024575	Nicotiana tabacum	BAB19803.1	AB052842	Oryza sativa
BAB03248.1	AB037183	Oryza sativa	BAB19804.1	AB052843	Oryza sativa
BAB16083.1	AB036883	Oryza sativa	BAB19805.1	AB052844	Oryza sativa
AAF23899.1	AF193803	Oryza sativa	CAB40354.1	Y17445	Lycopersicon esculentum
AAF05606.1	AF190770	Oryza sativa	AAB58718.1	AF000939	Hordeum vulgare
BAA78738.1	AB023482	Oryza sativa	BAA10891.1	D64011	Luffa cylindrica
AAG43548.1	AF211530	Nicotiana tabacum	BAA10892.1	D64012	Luffa cylindrica
AAG43549.1	AF211531	Nicotiana tabacum	AAG21384.1	AF301533	Petunia integrifolia
BAA99376.1	AP002526	Oryza sativa	BAA08474.1	D49528	Pyrus pyrifolia
AAK01089.1	AF298231	Hordeum vulgare	AAA60466.1	U07363	Petunia x hybrida
SEQ ID NO. 1645			AAK15437.1	AF239910	Petunia axillaris
			AAF36980.1	AF232304	Solanum chacoense

AAA60465.1	U07362	Petunia x hybrida	AAG34840.1	AAG3484697	Zea mays
BAA24018.1	D63888	Nicotiana glauca	AAG34848.1	AF2444705	Zea mays
AAF05729.1	AF191732	Solanum chacoense	AAG34833.1	AF2444690	Zea mays
AAD56217.1	AF176533	Solanum chacoense	AAC32118.1	AF051214	Picea mariana
SEQ ID NO. 1649			AAD10129.1	AF004358	Aegilops tauschii
AAC49528.1	U56834	Petroselinum crispum	AAG34850.1	AF2444707	Zea mays
BAA77358.1	AB020023	Nicotiana tabacum	AAG34830.1	AF2444687	Zea mays
AAD16139.1	AF096299	Nicotiana tabacum	AAG34839.1	AF2444696	Zea mays
AAD27591.1	AF121354	Petroselinum crispum	CAA09188.1	AJ010449	Alopecurus myosuroides
AAC37515.1	I44134	Cucumis sativus	AAG34835.1	AF2444692	Zea mays
AAC49527.1	U48831	Petroselinum crispum	AAG34828.1	AF2444685	Zea mays
CAA88326.1	248429	Avena fatua	CAA09187.1	AJ010448	Alopecurus myosuroides
AAC49529.1	U58540	Petroselinum crispum	CAA09189.1	AJ010450	Alopecurus myosuroides
CAA88331.1	248431	Avena fatua	AAG34847.1	AF2444704	Zea mays
AAD16138.1	AF096298	Nicotiana tabacum	AAG34846.1	AF2444703	Zea mays
AAF61864.1	AF193771	Nicotiana tabacum	AAG34834.1	AF2444691	Zea mays
BAA87069.1	AB035271	Matricaria chamomilla	AAG34841.1	AF2444698	Zea mays
AAF61863.1	AF193770	Nicotiana tabacum	AAG34845.1	AF2444702	Zea mays
SEQ ID NO. 1650			AAG34797.1	AF243362	Glycine max
BAA85440.1	AF000616	Oryza sativa	AAG34798.1	AF243363	Glycine max
CAB53493.1	AJ245900	Oryza sativa	AAG34809.1	AF243374	Glycine max
SEQ ID NO. 1654			AAC32139.1	AF051238	Picea mariana
AAD51854.1	AF178990	Vitis riparia	AAG34844.1	AF2444701	Zea mays
AAB00555.1	U54704	Phaseolus vulgaris	AAG34843.1	AF2444700	Zea mays
SEQ ID NO. 1659			AAG34807.1	AF243372	Glycine max
AAF62403.1	AF212183	Nicotiana tabacum	AAF64450.1	AF239928	Euphorbia esula
CAA68848.1	Y07563	Oryza sativa	AAG34801.1	AF243366	Glycine max
AAB97367.1	AF039532		SEQ ID NO. 1667		
SEQ ID NO. 1665			AAB69642.1	AF000392	Lotus japonicus
AAF22517.1	AF118924	Papaver somniferum	AAD01600.1	AF016713	Lycopersicon esculentum
AAF22518.1	AF118925	Papaver somniferum	AAC32034.1	AF023472	Hordeum vulgare
AAF22519.1	AF118926	Papaver somniferum	AAF20002.1	AF213936	Prunus dulcis
AAF29773.1	AF159229	Gossypium hirsutum	AAF07875.1	AF140606	Oryza sativa
AAG34838.1	AF244695	Zea mays	CAC07206.1	AJ278966	Brassica napus
AAG34795.1	AF243360	Glycine max	CAA93316.1	Z69370	Cucumis sativus
AAG34842.1	AF244699	Zea mays	BAB19757.1	AB052785	Glycine max
			BAB19760.1	AB052788	Glycine max
			BAB19756.1	AB052784	Glycine max
			AAD16016.1	AF080545	Nepenthes alata
			AAD42860.1	AF154930	Prunus dulcis



SEQ ID NO. 1668	Brassica napus	CAA09419.1	AJ010942	Lycopersicon esculentum
AAK21965.1	Phaseolus vulgaris	CAA68813.1	Y07520	Chlorella kessleri
AAD21872.1	Oryza sativa	CAB52689.1	AJ132224	Lycopersicon esculentum
AAA33915.1	Populus nigra	BAB19864.1	AB052885	Oryza sativa
BAA82556.1	Lophopyrum elongatum	CAA39036.1	X55349	Chlorella kessleri
AAK11674.1	Lophopyrum elongatum	CAA47324.1	X66856	Nicotiana tabacum
AAF43496.1	Oryza sativa	AAA79761.1	L08196	Ricinus communis
AAG03090.1	Zea mays	AAA79857.1	L08188	Ricinus communis
AAB93834.1	Nicotiana tabacum	CAB06079.1	Z83829	Picea abies
AAF66615.1	Nicotiana tabacum	CAA53192.1	X75440	Chlorella kessleri
AAG25966.1	Nicotiana tabacum	CAA70777.1	Y09590	Vitis vinifera
AAB09771.1	Zea mays	CAA04511.1	AJ001061	Vitis vinifera
AAF34428.1	Oryza sativa	CAB07812.1	Z93775	Vicia faba
AAC23542.1	Ipomoea trifida	BAB19863.1	AB052884	Oryza sativa
BAA94516.1	Oryza sativa	BAB19862.1	AB052883	Oryza sativa
CAA73134.1	Brassica oleracea	AAB06594.1	U38651	Medicago truncatula
BAA92954.1	Oryza sativa	BAA85398.1	AP000615	Oryza sativa
AAK16628.1	Brassica napus	AAD55054.1	AF173655	Beta vulgaris
CAB51834.1	Oryza sativa	CAB52690.1	AJ132225	Lycopersicon esculentum
BAA06538.1	Nicotiana tabacum	SEQ ID NO. 1673		
CAA73133.1	Brassica oleracea	AAG00510.1	AF285172	Phaseolus vulgaris
CAB89179.1	Brassica napus subsp. napus	CAA97692.1	Z73295	Catharanthus roseus
AAA33008.1	Brassica napus	CAB51834.1	00069	Oryza sativa
BAA92837.1	Brassica oleracea	AAK21965.1	AY028699	Brassica napus
AAA33000.1	Brassica oleracea	AAF91323.1	AF244889	Glycine max
CAA79355.1	Brassica oleracea	AAF59906.1	AF197947	Glycine max
CAA67145.1	Brassica oleracea	AAF91324.1	AF244890	Glycine max
CAA74661.1	Brassica oleracea	AAF91322.1	AF244888	Glycine max
AAA62232.1	Brassica napus	AAF59905.1	AF197946	Glycine max
BAA23676.1	Brassica rapa	AAK11567.1	AF318491	Lycopersicon hirsutum
BAA07577.2	Brassica rapa	AAK11569.1	AF318493	Lycopersicon hirsutum
CAA74662.1	Brassica oleracea	AAF76306.1	AF220602	Lycopersicon pimpinellifolium
BAA07576.1	Brassica rapa	AAC48914.1	U02271	Lycopersicon pimpinellifolium
SEQ ID NO. 1669	Apium graveolens var. dulce	AAB47423.1	U59315	Lycopersicon pimpinellifolium
AAG43998.1	Nicotiana tabacum	AAK11566.1	AF318490	Lycopersicon hirsutum
AAF74566.1	Spinacia oleracea	AAC36318.1	AF053127	Malus x domestica
AAF74565.1	Solanum tuberosum	AAB09771.1	U67422	Zea mays
AAF74567.1	Zea mays	AAB47421.1	U59316	Lycopersicon esculentum
AAF74568.1		AAF76313.1	AF220603	Lycopersicon esculentum
		AAG03090.1	AC073405	Oryza sativa

BAA94509.1	AB041503	Populus nigra
AFA76314.1	AF220603	Lycopersicon esculentum
BAA94510.1	AB041504	Populus nigra
ARG25966.1	AF302082	Nicotiana tabacum
AAF76307.1	AF220602	Lycopersicon pimpinellifolium
AAB47424.1	U59317	Lycopersicon pimpinellifolium
BAA78764.1	AB023482	Oryza sativa
AAB47422.1	U59318	Lycopersicon esculentum
SEQ ID NO.	1674	Solanum tuberosum
AAD10836.1	U52079	Oryza sativa
BAA83352.1	AP000391	Oryza sativa
BAA90508.1	AP001111	Oryza sativa
BBA90507.1	AP001111	Oryza sativa
SEQ ID NO.	1675	Brassica juncea
AFE20931.1	AF206721	Nicotiana tabacum
BAA07734.1	D43624	Cucumis sativus
AAR33119.1	J04494	Medicago truncatula
CAAT5577.1	Y15295	Cucumis melo
AAF35911.2	AF233594	Cucurbita sp.
CAA39300.1	X55779	Cucurbita maxima
BAA09528.1	D55677	Cucumis melo
AAF35910.1	AF233593	Cucumis melo
CAA71275.1	Y10226	Cucumis melo
AAF20932.1	AF206722	Brassica juncea
AAF20933.1	AF206723	Brassica juncea
CAA71273.1	Y10224	Cucumis melo
CAA71274.1	Y10225	Cucumis melo
BAA20520.1	AB004799	Oryza sativa
AAF33751.1	AF202460	Capsicum annuum
AAB17193.1	U73105	Liriodendron tulipifera
AAB17191.1	U73103	Liriodendron tulipifera
AAC49536.1	U43542	Nicotiana tabacum
AAB17194.1	U73106	Liriodendron tulipifera
AAB17192.1	U73104	Liriodendron tulipifera
AAB09228.1	U12757	Acer pseudoplatanus
CAA45554.1	X64257	Brassica napus
AAC49538.1	U45243	Nicotiana tabacum
AAC49537.1	U43543	Nicotiana tabacum
RAD02557.1	AF049931	Petunia x hybrida
SEQ ID NO.	1679	Arachis hypogaea
CAA57773.1	X82329	Petroselinum crispum
AAD54935.1	AF141373	

AAD54936.1	AF141374	Petroselinum crispum	AAB41324.1	U83591	Medicago sativa
AAF00131.1	AF147091	Fragaria x ananassa	CAC17793.1	AJ301671	Nicotiana sylvestris
AAC95376.1	AF105426	Cynodon dactylon	AAB41325.1	U83592	Medicago sativa
BAA95846.1	AP002070	Oryza sativa	AAB23263.1	S43926	Phaseolus vulgaris
AAA32986.1	M95835	Brassica napus	AAA33756.1	M13968	Phaseolus vulgaris
AAF69783.1	AF135143	Arabis lemmonii	CAA35945.1	X51599	Nicotiana tabacum
AAF69775.1	AF135135	Arabis drummondii	AAA34070.1	M15173	Nicotiana tabacum
AAF69792.1	AF135152	Arabis parishii	CAA45822.1	X64519	Nicotiana tabacum
AAC95375.1	AF105425	Cynodon dactylon	SEQ ID NO. 1680		
AAF69785.1	AF135145	Arabis lignifera	BAA85400.1	AP000615	Oryza sativa
AAF69770.1	AF135130	Arabis holboellii	CAB06083.1	Z83834	Hordeum vulgare
AAF69781.1	AF135141	Arabis gunnisoniana	CAA74909.1	Y14573	Hordeum vulgare
AAF69777.1	AF135137	Arabis fecunda	CAA06487.1	AJ005341	Linum usitatissimum
AAF69790.1	AF135150	Arabis microphylla			
AAF69787.1	AF135147	Arabis lignifera	SEQ ID NO. 1681		
AAF69772.1	AF135132	Arabis gunnisoniana	BAA82107.1	AB022693	Nicotiana tabacum
AAF69782.1	AF135142	Halimolobos perplexa var.	AAC31956.1	AF080595	Pimpinella brachycarpa
perplexa			AAD55974.1	AF121353	Petroselinum crispum
AAF69784.1	AF135144	Arabis lemmonii	BAA77383.1	AB020590	Nicotiana tabacum
AAF69788.1	AF135148	Arabis lyallii	AAC49527.1	U48831	Petroselinum crispum
BAA03750.1	D16222	Oryza sativa	CAA88326.1	Z48429	Avena fatua
AAF69776.1	AF135136	Arabis fecunda	AAD16139.1	AF096299	Nicotiana tabacum
CAA40107.1	X56787	Oryza sativa	BAA86031.1	AB026890	Nicotiana tabacum
BAB13369.1	AB048531	Psophocarpus tetragonolobus	AAC37515.1	L44134	Cucumis sativus
AAF69778.1	AF135138	Arabis glabra	AAF23898.1	AF193802	Oryza sativa
AAF69786.1	AF135146	Arabis lignifera	AAD16138.1	AF096298	Nicotiana tabacum
BAA82826.1	AB023464	Arabis gemmifera	AAC49529.1	U58540	Petroselinum crispum
AAF69773.1	AF135133	Arabis blepharophylla	CAA88331.1	Z48431	Avena fatua
AAF69791.1	AF135151	Arabis microphylla	AAC49528.1	U56834	Petroselinum crispum
AAF69793.1	AF135153	Arabis parishii	AAG35658.1	AF204925	Petroselinum crispum
CAA39535.1	X56063	Oryza sativa	BAB16432.1	AB041520	Nicotiana tabacum
BAA03749.1	D16221	Oryza sativa	BAA77358.1	AB020023	Nicotiana tabacum
AAF69789.1	AF135149	Arabis microphylla	AAC35659.1	AF204926	Petroselinum crispum
CAA71402.1	Y10373	Medicago truncatula	AAD27591.1	AF121354	Petroselinum crispum
AAC16010.1	AF061805	Elaeagnus umbellata	CAB66338.1	AJ279697	Betula pendula
CAA53626.1	X76041	Triticum aestivum	AAF61864.1	AF193771	Nicotiana tabacum
BAA33971.1	AB008892	Nicotiana tabacum	BAA87069.1	AB035271	Matricaria chamomilla
CAA47921.1	X67693	Solanum tuberosum	AAF61863.1	AF193770	Nicotiana tabacum
AAF69780.1	AF135140	Arabis glabra			
BAB18519.1	AB051578	Secale cereale	SEQ ID NO. 1682		
AAAS1377.1	L37289	Oryza sativa			

CAA55128.1	X78325	Nicotiana tabacum
CAA54373.1	X77110	Nicotiana tabacum
CAA54374.1	X77111	Nicotiana tabacum
SEQ ID NO. 1685		
CAB55394.1	AL117264	Oryza sativa
BAA78563.1	AB024338	Atriplex lentiformis
AAB97470.1	AF042489	Oryza sativa
AAA33030.1	M93041	Mesembryanthemum crystalli
CAB65371.1	AJ250834	Pisum sativum
CAB55559.1	AJ237943	Triticum aestivum
CAB65370.1	AJ250833	Pisum sativum
CAB55558.1	AJ237942	Triticum aestivum
AAD43971.1	AF141878	Oryza sativa
AAD43973.1	AF141880	Oryza sativa
AAC04837.1	AF032976	Oryza sativa
AAG00425.1	AF250933	Hordeum vulgare
AAD43972.1	AF141879	Oryza sativa
CAA63659.1	X93171	Hordeum vulgare
AAC04833.1	AF032972	Oryza sativa
AAC04834.1	AF032973	Oryza sativa
AAC04832.1	AF032971	Oryza sativa
AAG00426.1	AF250934	Hordeum vulgare
AAG00427.1	AF250935	Hordeum vulgare
AAF34811.1	AF005084	Triticum aestivum
AAC04835.1	AF032974	Oryza sativa
BAB39965.1	AP003018	Oryza sativa
BAB39980.1	AP003020	Oryza sativa
AAG00428.1	AF250936	Hordeum vulgare
AAA20245.1	U01963	Hordeum vulgare
CAC19429.1	AJ291825	Lolium perenne
AAA34270.1	M63223	Triticum aestivum
AAA34268.1	M21962	Triticum aestivum
CAA74595.1	Y14203	Hordeum vulgare
AAG00429.1	AF250937	Hordeum vulgare
CAB65369.1	AJ250832	Pisum sativum
AAA32959.1	L15737	Hordeum vulgare
CAA71052.1	Y09917	Triticum aestivum
AAA34271.1	M63224	Triticum aestivum
CAA71050.1	Y09915	Triticum aestivum
BAA86880.1	AB028454	Barbula unguiculata
Brassica napus		
Brassica napus		
Brassica napus		
Cicer arietinum		
Populus tremuloides		
Lolium perenne		
Lithospermum erythrorhizon		
Petroselinum crispum		
Rubus idaeus		
Petroselinum crispum		
Populus tremuloides		
Pinus taeda		
Pinus taeda		
Pinus taeda		
Populus x generosa		
Lolium perenne		
Populus x generosa		
Oryza sativa		
Pinus taeda		
Rubus idaeus		
Lithospermum erythrorhizon		
Solanum tuberosum		
Lolium perenne		
Rubus idaeus		
Glycine max		
Juglans nigra		
Tsuga canadensis		
Nothotsuga longibracteata		
Tsuga canadensis		
Picea smithiana		
Cedrus atlantica		
Pinus armandii		
Pinus armandii		
Pinus armandii		
Pseudotsuga sinensis		
Pseudotsuga sinensis		
Pseudolarix amabilis		
Tsuga mertensiana		
Abies firma		
CAA19877.1	AJ401089	
CAA96523.1	Z72153	
CAA64327.1	X94624	
CAA06820.1	AJ006025	
AAC24504.1	AF041050	
AAF37734.1	AF052223	
BAA08366.2	D49367	
CAA31696.1	X13324	
AAF91309.1	AF239686	
CAA31697.1	X13325	
AAC24503.1	AF041049	
AAB42382.1	U39404	
AAA92669.1	U12013	
AAB42383.1	U39405	
AAC39366.1	AF008184	
AAF37733.1	AF052222	
AAC39365.1	AF008183	
CAA36850.1	X52623	
AAA92668.1	U12012	
AAF91308.1	AF239685	
BAA08365.1	D49366	
AA333842.1	M62755	
AAF37732.1	AF052221	
AAF91310.1	AF239687	
CAA49575.1	X69954	
CAB97359.1	AJ278455	
AAF74018.2	AF144525	
AAF74016.2	AF144523	
AAF74019.2	AF144526	
AAF73997.2	AF144504	
AAF74022.2	AF144529	
AAF73995.2	AF144502	
AAF73994.2	AF144501	
AAF73996.2	AF144503	
AAF74004.2	AF144511	
AAF74002.2	AF144509	
AAF74020.2	AF144527	
AAF74017.2	AF144524	
AAF74008.2	AF144515	
SEQ ID NO. 1684		

AAF033355.1	AF132671	Nicotiana plumbaginifolia	SEQ ID NO. 1689	SEQ ID NO. 1689	Oryza sativa
BAA25197.1	AB012138	Lycopersicon esculentum	BAA5400.1	AF000615	Hordeum vulgare
AAC78470.1	AF067731	Solanum tuberosum	CAA74909.1	Y14573	Hordeum vulgare
AAC25777.1	AF072694	Oryza sativa	CAB06083.1	Z83834	Linum usitatissimum
AAC99473.1	AF039201	Pinus caribaea	CAA06487.1	AJ005341	
CAA71051.1	Y09916	Triticum aestivum			
AAC05146.1	AF049065	Pinus radiata	SEQ ID NO. 1690		
CAC34417.1	AJ311624	Pisum sativum	AAA33280.1	L20475	Datura stramonium
			AAA33281.1	L20473	Datura stramonium
			BAA85844.1	AB026544	Hyoscyamus niger
SEQ ID NO. 1688		Sorghum bicolor	CAC34420.1	AJ307584	Solanum tuberosum
AAA85440.1	U32624	Manihot esculenta	BAA13547.1	D88156	Hyoscyamus niger
AAF27289.1	AF140613	Manihot esculenta	AAA33282.1	L20474	Datura stramonium
AAF27290.1	AF140614	Manihot esculenta	BAA85845.1	AB026545	Hyoscyamus niger
AAD03415.1	AF069494	Sinapis alba	AAB09776.1	L20485	Hyoscyamus niger
AAF66543.1	AF140609	Triglochin maritimum	CAB52307.1	AJ245634	Solanum tuberosum
AAF66544.1	AF140610	Triglochin maritimum	CAC19810.1	AJ292343	Solanum tuberosum
BAA92894.1	AB006790	Petunia x hybrida	CAA45866.1	X64566	Cuphea lanceolata
AAB94587.1	AF022458	Glycine max	CAA45793.1	X64463	Brassica napus
AAC32274.1	AF081575	Petunia x hybrida	AAB82767.1	U89509	Zea mays
AAD56282.1	AF155332	Petunia x hybrida	AAB82766.1	U89510	Hordeum vulgare
CAA64635.1	X95342	Nicotiana tabacum	AAB20114.2	S60064	Brassica napus
CAA50155.1	X70824	Solanum melongena	CAA74176.1	Y13861	Nicotiana tabacum
AAG44132.1	AF218296	Pisum sativum	AAB82764.1	U89511	Allium porrum
AAA32913.1	M32885	Persea americana	AAC78100.1	AF093628	Oryza sativa
BAA84071.1	AB028151	Antirrhinum majus	CAA74177.1	Y13862	Nicotiana tabacum
AAD38930.1	AF135485	Glycine max			
AAB17562.1	U72654	Eustoma grandiflorum	SEQ ID NO. 1691		
CAA65580.1	X96784	Nicotiana tabacum	AAD55979.1	AF159296	Lycopersicon esculentum
BAA93634.1	AB025016	Lotus japonicus	CAA84230.1	Z34465	Zea mays
AAB94590.1	AF022461	Glycine max	AAD55980.1	AF159297	Zea mays
BAA12159.1	D83968	Glycine max			
AAG14962.1	AF214008	Brassica napus	SEQ ID NO. 1695		
BAA74465.1	AB022732	Glycyrrhiza echinata	AAG24641.1	AF308736	Daucus carota
BAA22422.1	AB001379	Glycyrrhiza echinata	AAF68627.1	AF255052	Triticum aestivum
AAG14961.1	AF214007	Brassica napus	CAA40204.1	X56882	Triticum aestivum
CAA04117.1	AJ000478	Helianthus tuberosus	AAA83402.1	U05226	Zea mays
CAA04116.1	AJ000477	Helianthus tuberosus	AAD49719.1	AF166485	Glycine max
AAB94593.1	AF022464	Glycine max	AAA63614.1	M62989	Craterostigma plantagineum
BAA13076.1	D86351	Glycine max	AAF68628.1	AF255053	Triticum aestivum
CAA50647.1	X71656	Solanum melongena	CAA03925.1	AJ000100	Hordeum vulgare

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CAA66037.1	X97351	Populus balsamifera subsp.	CAB42794.1	AJ238754	Citrus clementina x Citrus
trichocarpa			reticulata		
AAD37430.1	AF149280	Phaseolus vulgaris	BAA00886.1	D10002	Pisum sativum
BAA06335.1	D30653	Populus kitakamiensis	BAA00887.1	D10003	Pisum sativum
CAA66034.1	X97348	Populus balsamifera subsp.	AAB67733.1	U43338	Citrus limon
trichocarpa			AAF40224.1	AF237955	Rubus idaeus
AAB02554.1	L37790	Stylosanthes humilis	AAA17993.1	M91192	Trifolium subterraneum
BAA07241.1	D38051	Populus kitakamiensis	CAA57057.1	X81159	Petroselinum crispum
BAA06334.1	D30652	Populus kitakamiensis	AAF40223.1	AF237954	Rubus idaeus
CAA66036.1	X97350	Populus balsamifera subsp.	CAA68938.1	Y07654	Petroselinum crispum
trichocarpa			CAA57056.1	X81158	Petroselinum crispum
BAA11853.1	D83225	Populus nigra	CAB60719.1	AJ250836	Cicer arietinum
CAB94692.1	AJ242742	Ipomoea batatas	CAA05251.1	AJ002221	Digitalis lanata
BAA92967.1	AP001551	Oryza sativa	AAC78457.1	AF036948	Prunus avium
CAA62226.1	X90693	Medicago sativa	BAA23367.1	D85850	Daucus carota
BAA11852.1	D83224	Populus nigra	CAA68256.1	X99997	Bromheadia finlaysoniana
AAC05277.1	AF049881	Linum usitatissimum	AAA33805.1	L11747	Populus x generosa
BAA77389.1	AB024439	Scutellaria baicalensis	BAA24928.1	D83075	Lithospermum erythrorhizon
AAB47602.1	L07554	Linum usitatissimum	CAA34226.1	X16099	Oryza sativa subsp. japonica
AAC98519.1	AF007211	Glycine max	CAA41169.1	X58180	Medicago sativa
CAA66035.1	X97349	Populus balsamifera subsp.	AAA34176.1	M90692	Lycopersicon esculentum
trichocarpa			BAA07860.1	D43802	Populus kitakamiensis
CAA40796.1	X57564	Armoracia rusticana	AAA84889.1	U39792	Pinus taeda
CAA59487.1	X85230	Triticum aestivum	CAA73065.1	Y12461	Helianthus annuus
AAB48184.1	L24120	Linum usitatissimum	BAA95629.1	AB042520	Catharanthus roseus
BAA08499.1	D49551	Oryza sativa	BAA05643.1	D26596	Camellia sinensis
CAA62227.1	X90694	Medicago sativa	BAA24929.1	D83076	Lithospermum erythrorhizon
AAD37427.1	AF149277	Phaseolus vulgaris	BAA21643.1	D30656	Populus kitakamiensis
AAB06183.1	M37636	Arachis hypogaea	CAA37129.1	X52953	Glycine max
BAA77388.1	AB024438	Scutellaria baicalensis	AAA34122.1	M84466	Nicotiana tabacum
AAC49819.1	AF014468	Oryza sativa	BAA22948.1	AB008200	Nicotiana tabacum
CAA71493.1	Y10467	Spinacia oleracea	AAA99500.1	L36822	Stylosanthes humilis
CAA62597.1	X91172	Raphanus sativus	CAB42793.1	AJ238753	Citrus clementina x Citrus
BAA03911.1	D16442	Oryza sativa	reticulata		
AAC49821.1	AF014470	Oryza sativa	AAG49585.1	AF325496	Ipomoea nil
CAA71491.1	Y10465	Spinacia oleracea	CAA55075.1	X78269	Nicotiana tabacum
SEQ ID NO. 1713			BAA22963.1	D17467	Nicotiana tabacum
BAA00885.1	D10001	Pisum sativum	BAA22947.1	AB008199	Nicotiana tabacum
AAK15640.1	AF326116	Agastache rugosa	AAA34179.2	M83314	Lycopersicon esculentum
			BAA11459.1	D78640	Ipomoea batatas
			AAA33389.1	M29232	Ipomoea batatas

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CAA67575.1	X99134	Lycopersicon esculentum	CAA66035.1	X97349	Populus balsamifera subsp.
CAB40189.1	AJ133638	Avena sativa	trichocarpa		
AAD31395.1	AF114162	Lolium temulentum	ARB48184.1	L24120	Linum usitatissimum
BAA88224.1	AB028652	Nicotiana tabacum	CAA40796.1	X57564	Armoracia rusticana
AAB41101.1	U72762	Nicotiana tabacum	BAA11852.1	D83224	Populus nigra
BAA88223.1	AB028651	Nicotiana tabacum	CAA59485.1	X85228	Triticum aestivum
BAA88221.1	AB028649	Nicotiana tabacum	AAB97734.1	AF014502	Glycine max
CAA61021.1	X87690	Hordeum vulgare	BAA03911.1	D16442	Oryza sativa
AAG22863.1	AY008692	Hordeum vulgare	AAC49821.1	AF014470	Oryza sativa
BAA96421.1	AB044084	Triticum aestivum	CAA71493.1	Y10467	Spinacia oleracea
CAA72218.1	Y11415	Oryza sativa	CAA66034.1	X97348	Populus balsamifera subsp.
BRA23341.1	D88621	Oryza sativa	trichocarpa		
ARG28526.1	AF198499	Nicotiana tabacum	CAA71491.1	Y10465	Spinacia oleracea
AAG28525.1	AF198498	Nicotiana tabacum	AAD37430.1	AF149280	Phaseolus vulgaris
CAA78386.1	Z13996	Petunia x hybrida	CAA66036.1	X97350	Populus balsamifera subsp.
CAA72187.1	Y11352	Oryza sativa	trichocarpa		
SEQ ID NO. 1718			CAA62227.1	X90694	Medicago sativa
AAA67067.1	U25430	Oryza sativa	CAA46916.1	X66125	Oryza sativa
BAB20681.1	AB032413	Spinacia oleracea	BAA92967.1	AP001551	Oryza sativa
SEQ ID NO. 1719			CAB94692.1	AJ242742	Ipomoea batatas
BAA92500.1	AP001383	Oryza sativa	BAA08499.1	D49551	Oryza sativa
AAF63027.1	AF244924	Spinacia oleracea	AAC49818.1	AF014467	Oryza sativa
AAF63026.1	AF244923	Spinacia oleracea	CAA62597.1	X91172	Raphanus sativus
CAA62615.1	X91232	Mercurialis annua	AAC05277.1	AF049881	Linum usitatissimum
BAA92427.1	AP001366	Oryza sativa	CAA66037.1	X97351	Populus balsamifera subsp.
AAF63025.1	AF244922	Oryza sativa	trichocarpa		
BAA94962.1	AB042103	Spinacia oleracea	CAA37713.1	X53675	Triticum aestivum
BAA82306.1	AB027752	Asparagus officinalis	AAD37427.1	AF149277	Phaseolus vulgaris
AAD43561.1	AF155124	Nicotiana tabacum	AAB97854.1	AF043235	Striga asiatica
BAA77389.1	AB024439	Gossypium hirsutum	BAA77388.1	AB024438	Scutellaria baicalensis
BAA07241.1	D38051	Scutellaria baicalensis	CAA62226.1	X90693	Medicago sativa
AAB06183.1	M37636	Populus kitakamiensis	BAA14143.1	D90115	Armoracia rusticana
CAA71492.1	Y10466	Arachis hypogaea	CAA59487.1	X85230	Triticum aestivum
BAA06334.1	D30652	Spinacia oleracea	SEQ ID NO. 1720		
AAB02554.1	L37790	Populus kitakamiensis	AAC49008.1	U24188	Lilium longiflorum
AAD37428.1	AF149278	Stylosanthes humilis	AAD52098.1	U70923	Nicotiana tabacum
BAA11853.1	D83225	Phaseolus vulgaris	AAD28791.1	AF145593	Nicotiana tabacum
		Populus nigra	AAD52092.1	AF087813	Nicotiana tabacum
			AAF21450.1	U38446	Nicotiana tabacum
			AAC32116.1	AF051211	Picea mariana

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CAA31519.1	X13128	Brassica napus	CAA38252.1	X54377	Pisum sativum
CAA49803.1	X70337	Brassica rapa	AAB99846.1	AF043099	Coffea eugenoides
CAA68475.1	Y00418	Brassica rapa	AAB99844.1	AF043097	Coffea canephora
AAB21541.1	S84968	Brassica rapa	AAB97081.1	AF042072	Coffea arabica
CAA31514.1	X13123	Brassica napus	AAB99845.1	AF043098	Coffea congensis
AA339495.1	AF041386	Fragaria x ananassa	SEQ ID NO. 1726		
CAA31518.1	X13127	Brassica napus	CAA51227.1	X72676	Brassica juncea
AAB05224.1	U48777	Gossypium hirsutum	AAC83147.1	AF057563	Nicotiana glutinosa
AAD46394.1	AF083950	Coriandrum sativum	CAB60722.1	AJ012551	Citrus sinensis
CAA71885.1	Y10994	Casuarina glauca	CAB60721.1	AJ012550	Citrus sinensis
AA332921.1	M63799	Hordeum vulgare	AAF97614.1	U18056	Lycopersicon esculentum
CAA54714.1	X77620	Cuphea lanceolata	AAF97615.1	U18057	Lycopersicon esculentum
AAD21198.1	AF127796	Capsicum chinense	CAA67118.1	X98492	Nicotiana tabacum
AA332922.1	M58754	Hordeum vulgare	AAA33275.1	M66619	Dianthus caryophyllus
CAA64542.1	X95253	Cuphea lanceolata	BAA34923.1	AB013100	Lycopersicon esculentum
AAA332924.1	M24426	Hordeum vulgare	CAB60831.1	AJ012696	Citrus sinensis
CAA54715.1	X77621	Cuphea lanceolata	CAA41855.1	X59139	Lycopersicon esculentum
AA332923.1	M24425	Hordeum vulgare	CAA41856.1	X59145	Lycopersicon esculentum
AA332920.1	M58753	Hordeum vulgare	AAC98809.1	U68216	Carica papaya
CAA54716.1	X77622	Cuphea lanceolata	AAB70885.1	U88971	Pelargonium x hortorum
CAA36288.1	X52065	Spinacia oleracea	AAD04199.1	AF016459	Pisum sativum
CAA41024.1	X57956	Zea mays	BAA33375.1	AB006804	Cucumis sativus
CAA31515.1	X13124	Brassica napus	BAB16433.1	AB041521	Solanum tuberosum
AAA34023.1	M17636	Spinacia oleracea	AAC15777.1	AF061605	Nicotiana glutinosa
AAK00695.1	AF229423	Brassica rapa	BAA90549.1	AB031026	Prunus mume
AAK00698.1	AF229426	Brassica oleracea	AAF22109.1	AF119411	Lupinus albus
AAK00690.1	AF229418	Brassica napus	AAC83146.1	AF057562	Nicotiana glutinosa
AAK00699.1	AF229427	Brassica oleracea	CAA09477.1	AJ011095	Citrus sinensis
AAK00696.1	AF229424	Brassica rapa	SEQ ID NO. 1727		
AAK00697.1	AF229425	Brassica oleracea	CAA09853.1	AJ011893	Nicotiana tabacum
CAA65138.1	X95895	Zea mays	CAB60837.1	AJ002589	Lycopersicon esculentum
AAK00692.1	AF229420	Brassica napus	CAB40540.1	AJ132929	Medicago sativa
AAK00693.1	AF229421	Brassica napus	CAA61334.1	X88864	Medicago sativa
AAK00694.1	AF229422	Brassica rapa	BAA33153.1	AB008188	Pisum sativum
AAK00691.1	AF229419	Brassica napus	CAB60836.1	AJ002588	Lycopersicon esculentum
SEQ ID NO. 1724			CAB51788.1	AJ245415	Lycopersicon esculentum
CAA85353.1	Z36879	Flaveria pringlei	CAA09854.1	AJ011894	Nicotiana tabacum
CAA91000.1	Z54239	Flaveria pringlei	CAB61223.1	AJ250398	Antirrhinum majus
CAA81076.1	Z25857	Flaveria pringlei	CAB61222.1	AJ250397	Antirrhinum majus
AA82711.1	AF024589	Hordeum x Triticum			

CAB60838.1	AJ002590	Lycopersicon esculentum	BAA90357.1	AP001080	Oryza sativa
CAA09769.1	AJ011776	Chenopodium rubrum	BAA85438.1	AP000616	Oryza sativa
CAB40541.1	AJ132930	Medicago sativa	BAA90806.1	AP001168	Oryza sativa
CAA71244.1	Y10162	Chenopodium rubrum	SEQ ID NO. 1729		
CAA09852.1	AJ011892	Nicotiana tabacum	AAB94619.1	AF032386	Nicotiana tabacum
CAB61221.1	AJ250396	Antirrhinum majus	SEQ ID NO. 1730		
CAA63540.1	X92964	Nicotiana tabacum	AAB97366.1	AF039531	Oryza sativa
CAA48675.1	X68741	Medicago sativa	SEQ ID NO. 1731		
CAB46643.1	AJ243453	Lycopersicon esculentum	BAA03094.1	D13987	Brassica napus
BAA86629.1	AB024987	Oryza sativa	AAB80714.1	AF008939	Gossypium hirsutum
BAA20426.1	D89636	Nicotiana tabacum	CAA88829.1	Z48966	Flaveria pringlei
CAB81558.1	Z37978	Nicotiana tabacum	AAG17619.1	AF248080	Flaveria trinervia
CAA63541.1	X92965	Pisum sativum	CAA62469.1	X90982	Solanum tuberosum
CAB77269.1	AJ133722	Nicotiana tabacum	CAA47437.1	X67053	Solanum tuberosum
CAA63753.1	X93467	Catharanthus roseus	CAA45505.1	X64144	Flaveria pringlei
BAA20410.1	D86385	Lupinus luteus	AAG17618.1	AF248079	Flaveria trinervia
AAC61889.1	U24194	Lupinus luteus	CAA41758.1	X59016	Nicotiana tabacum
AAD31790.1	AF126107	Lupinus luteus	BAA23419.1	AB008540	Glycine max
CAA81232.1	Z26331	Glycine max	CAB65171.1	AJ243417	Lycopersicon esculentum
CAA44632.1	X62820	Glycine max	AAD31452.1	AF135371	Lotus corniculatus
CAA44188.1	X62303	Glycine max	CAB65170.1	AJ243416	Lycopersicon esculentum
AAC50013.1	U50064	Zea mays	BAA01560.1	D10717	Glycine max
CAA57556.1	X82036	Oryza sativa	AAB18633.1	L49175	Amaranthus hypochondriacus
BAA09467.1	D50871	Glycine max	CAA55700.1	X79090	Picea abies
CAB46642.1	AJ243452	Lycopersicon esculentum	CAC28225.1	AJ286750	Sesbania rostrata
BAA33154.1	AB008189	Pisum sativum	CAA43601.1	X61304	Flaveria trinervia
AAC24245.1	U44857	Lupinus luteus	CAA09807.1	AJ011844	Solanum tuberosum
AAD31791.1	AF126108	Lupinus luteus	CAA61072.1	Z25853	Flaveria australasica
CAA44631.1	X62819	Daucus carota	AAC33164.1	M86661	Saccharum sp.
BAA20412.1	D86387	Catharanthus roseus	BAA03100.1	D13998	Glycine max
CAA71243.1	Y10161	Chenopodium rubrum	CAA92209.1	Z68125	Amaranthus hypochondriacus
CAA99990.1	Z75660	Sesbania rostrata	CAA45504.1	X64143	Flaveria trinervia
AA51660.1	L25406	Brassica napus	AAK28444.1	AF288382	Phaseolus vulgaris
CAB46644.1	AJ243454	Lycopersicon esculentum	CAA31956.1	X13660	Mesembryanthemum crystallinum
AA20236.1	U10076	Zea mays	AAB46618.1	M83086	Medicago sativa
CAB58998.1	AJ250315	Petunia x hybrida	AAB41903.1	L39371	Medicago sativa
SEQ ID NO. 1728			AAG42288.1	AF268091	Chloris gayana
AAG43550.1	AF211532	Nicotiana tabacum	CAA09588.1	AJ011302	Vicia faba
BAA78746.1	AB023482	Oryza sativa			
BAA96875.1	AB045121	Oryza sativa			

D64037	BAA10902.1	Pisum sativum
AJ007705	CAA07610.1	Triticum aestivum
AJ223496	CAA11414.1	Brassica juncea
X59925	CAA42549.1	Sorghum bicolor
AJ223497	CAA11415.1	Brassica juncea
X61489	CAA43709.1	Zea mays
AF271995	AG00180.1	Oryza sativa
X15239	CAA33317.1	Zea mays
X65137	CAA46267.1	Sorghum bicolor
X55664	CAA39197.1	Sorghum bicolor
AB012228	BAA28170.1	Zea mays
X15238	CAA33316.1	Zea mays
X15642	CAA33663.1	Zea mays
X14588	CAA32728.2	Mesembryanthemum crystallinum
AF159051	AAD45696.1	Picea abies
X87148	CAA60626.1	Vanilla planifolia
X87149	CAA60627.1	Vanilla planifolia
X91404	CAA62747.1	Welwitschia mirabilis
SEQ ID NO.	1732	
AAD26116.1	AF106954	Brassica napus
ABJ237693	CAB51533.1	Ajuga reptans
ABJ237694	CAB51534.1	Ajuga reptans
AF178569	AAD55726.1	Vitis riparia
SEQ ID NO.	1735	
BAA94601.1	AB033504	Populus euramericana
AAA33697.1	L21978	Petunia x hybrida
AAC48977.1	U07953	Pelargonium x hortorum
CAAS4449.1	X77232	Prunus persica
AAF36483.1	AF129073	Prunus persica
AAC33524.1	AF026793	Prunus armeniaca
ABW70884.1	U67861	Pelargonium x hortorum
AAG49361.1	AF321533	Citrus sinensis
BAR90550.1	AB031027	Prunus mume
AAA99792.1	U54565	Nicotiana glutinosa
ABW05171.1	U62764	Nicotiana glutinosa
AAC37381.1	L21976	Petunia x hybrida
CAA71738.1	Y10749	Betula pendula
CAAB6468.1	Z46349	Nicotiana tabacum
PAAB3466.1	AB012857	Nicotiana tabacum
U68215	AAC98808.1	Carica papaya
D31727	BAA06526.1	Cucumis melo
X95551	CAA64797.1	Cucumis melo
X83229	CAA58232.1	Nicotiana tabacum
AB013101	BAA34924.1	Lycopersicon esculentum
AF254125	AAF64528.1	Carica papaya
L21979	AAA33698.1	Petunia x hybrida
X58273	CAA41212.1	Lycopersicon esculentum
AB003514	BAA21541.1	Actinidia deliciosa
L29405	ABW71421.1	Helianthus annuus
U54566	AAA99793.1	Nicotiana glutinosa
AF129074	AAF36484.1	Prunus persica
X95553	CAA64799.1	Cucumis melo
Z54199	CAA90904.1	Lycopersicon esculentum
Y00478	CAA68538.1	Lycopersicon esculentum
AF053354	AAC12934.1	Phaseolus vulgaris
U19856	ABW70883.1	Pelargonium x hortorum
AF033582	AAC67233.1	Cucumis sativus
AB006806	BAA33377.1	Cucumis sativus
AB006807	BAA33378.1	Cucumis sativus
Y10034	CAA71140.1	Rumex palustris
M98357	AAA33644.1	Pisum sativum
U06046	AAC48921.1	Vigna radiata
AF315316	AAK07883.1	Vigna radiata
L35152	AAA33273.1	Dianthus caryophyllus
Y14005	CAA74328.1	Malus x domestica
SEQ ID NO.	1736	
AAG35777.1	AF273844	Brassica oleracea var.
alboglabra		
ABW53694.1	U59379	Brassica napus
BAA25681.1	AB010434	Brassica rapa
BAB20886.1	AB053294	Oryza sativa
ABW53695.1	U59380	Brassica napus
AAF88067.1	AF286593	Triticum aestivum
CAA94534.1	Z70677	Ricinus communis
CAA05081.1	AJ001903	Triticum turgidum subsp. durum
BAA13524.1	D87984	Fagopyrum esculentum
CAA41415.1	X58527	Nicotiana tabacum
CAA77847.1	Z11803	Nicotiana tabacum
AAC32111.1	AF051206	Picea mariana



AAA80651.1	U27116	Populus tremuloides	BAA94510.1	AB041504	Populus nigra
AAC08395.1	AF053553	Mesembryanthemum crystallinum	AAC27895.1	AF023165	Zea mays
CAA12200.1	AJ224896	Populus balsamifera subsp.	AAF91337.1	AF249318	Glycine max
trichocarpa			AAF91336.1	AF249317	Glycine max
CAA12199.1	AJ224895	Populus balsamifera subsp.	CAB51834.1	00069	Oryza sativa
trichocarpa			AAB09771.1	U67422	Zea mays
CAA11495.1	AJ223620	Populus balsamifera subsp.	AAC61805.1	U28007	Lycopersicon esculentum
trichocarpa			AAK21965.1	AY028699	Brassica napus
AAD50443.1	AF168780	Eucalyptus globulus	AAG03090.1	AC073405	Oryza sativa
AAF44689.1	AF240466	Populus tomentosa	AAF34428.1	AF172282	Oryza sativa
AAC49913.1	U38612	Nicotiana tabacum	AAG25966.1	AF302082	Nicotiana tabacum
CAA72911.1	Y12228	Eucalyptus gunnii	AAF66615.1	AF142596	Nicotiana tabacum
AAC49916.1	U62736	Nicotiana tabacum	CAB51836.1	AJ243961	Oryza sativa
BAA78733.1	AB023482	Oryza sativa	CAA97692.1	Z73295	Catharanthus roseus
CAA91228.1	Z56282	Nicotiana tabacum	BAA84787.1	AP000559	Oryza sativa
AAC49914.1	U62734	Nicotiana tabacum	BAA83373.1	AP000391	Oryza sativa
AAC26191.1	AF046122	Eucalyptus globulus	AAF76313.1	AF220603	Lycopersicon esculentum
AAC49915.1	U62735	Nicotiana tabacum	AAB47421.1	U59316	Lycopersicon esculentum
AAD02050.1	AF036095	Pinus taeda	CAA79355.1	Z18921	Brassica oleracea
AAK16714.1	AF327458	Populus alba x Populus	AAA33915.1	I27821	Oryza sativa
glandulosa			BAA95893.1	AP002071	Oryza sativa
CAB45150.1	AJ242981	Zea mays	AAC36318.1	AF053127	Malus x domestica
CAB45149.1	AJ242980	Zea mays			
AAB61680.1	L22203	Stellaria longipes	SEQ ID NO. 1742		
BAA88234.1	AB035144	Citrus natsudaiddai	AAK27157.1	AF349449	Brassica juncea
BAA81776.1	AP000364	Oryza sativa	AAD28177.1	AF109694	Brassica juncea
BAA81774.1	AP000364	Oryza sativa	AAB70837.1	AF019907	Vitis vinifera
BAA81777.1	AP000364	Oryza sativa	CAA53925.1	X76293	Nicotiana tabacum
CAA10217.1	AJ130841	Populus balsamifera subsp.	AAF26175.1	AF105199	Glycine max
trichocarpa			AAA33962.1	L11632	Glycine max
AAD50441.1	AF168778	Eucalyptus globulus	CAA42921.1	X60373	Pisum sativum
AAD50442.1	AF168779	Eucalyptus globulus	CAA62482.1	X90996	Pisum sativum
AAC15067.1	AF060180	Nicotiana tabacum	CAA54043.1	X76533	Nicotiana tabacum
			CAA53993.1	X76455	Nicotiana tabacum
SEQ ID NO. 1741			CAA06835.1	AJ006055	Zea mays
BAA78764.1	AB023482	Oryza sativa	CAA66924.1	X98274	Pisum sativum
AAF43496.1	AF131222	Lophopyrum elongatum	BAA36283.1	D85751	Oryza sativa
AAK11674.1	AF339747	Lophopyrum elongatum	BAA37092.1	AB009592	Oryza sativa
AAK16628.1	AY007545	Brassica napus	BAA07108.1	D37870	Spinacia oleracea
AAC27894.1	AF023164	Zea mays	AAF67753.1	AF255651	Brassica rapa subsp. pekinensis
BAA94509.1	AB041503	Populus nigra	AAC49980.2	AF008441	Brassica rapa

CAC13956.1	AJ400816	Mesembryanthemum crystallinum	BAA20074.1	AB002147	Nicotiana excelsior
CAB66332.1	AJ279690	Betula pendula	BAA1820.1	AB029325	Oryza sativa
AAC26053.1	AF074940	Glycine max	AAB67870.1	U60149	Beta vulgaris
AAB30526.1	S70187	Glycine max	AAB18228.1	U73467	Mesembryanthemum crystalli
AAD53185.1	AF181096	Vigna unguiculata	CAB46350.1	Y18311	Solanum tuberosum
AAD28178.1	AF109695	Brassica juncea	BAA24016.1	AB009665	Oryza sativa
BAA05408.1	D26392	Cucumis sativus	CAA04652.1	AJ001292	Craterostigma plantagineum
AAC41654.1	L41345	Lycopersicon esculentum	SEQ ID NO. 1746		
			CAB76364.1	AJ133371	Cucumis sativus
SEQ ID NO. 1743			SEQ ID NO. 1747		
CAA82945.1	Z30243	Secale cereale	BAB21153.1	AP002899	Oryza sativa
AAA33748.1	M99431	Ipomoea nil	AAC49181.1	U39289	Brassica napus
BAA90487.1	AB037681	Oryza sativa	BAA94228.1	AP001633	Oryza sativa
CAA77978.1	Z11920	Oryza sativa	AAC49182.1	U39319	Brassica napus
AAA16785.1	L14594	Catharanthus roseus	BAA94236.1	AP001633	Oryza sativa
AAB01376.1	M96549	Lycopersicon esculentum	BAA94219.1	AP001633	Oryza sativa
AAD11549.1	U55859	Triticum aestivum	BAA94224.1	AP001633	Oryza sativa
AAB26482.2	S59780	Zea mays	BAA94215.1	AP001633	Oryza sativa
CAA44877.1	X63195	Nicotiana tabacum	SEQ ID NO. 1749		
AAD30456.1	AF123259	Lycopersicon esculentum	CAA65064.1	X95753	Antirrhinum majus
AAF31705.1	AF221856	Euphorbia esula	SEQ ID NO. 1750		
AAC32131.1	AF051230	Picea mariana	AAD21872.1	AF078082	Phaseolus vulgaris
AAD11550.1	U55860	Triticum aestivum	CAA73134.1	Y12531	Brassica oleracea
SEQ ID NO. 1744			AAB93834.1	U82481	Zea mays
AAD41796.1	AF135862	Glycine max	AAC23542.1	U20948	Ipomoea trifida
BAA95630.1	AB042521	Oryza sativa	CAA73133.1	Y12530	Brassica oleracea
AAA74361.1	L33913	Zea mays	CAA67145.1	X98520	Brassica napus
BAA11417.1	D78573	Oryza sativa	AAA62232.1	U00443	Brassica oleracea
AAC05983.1	AF049708	Glycine max	CAA74661.1	Y14285	Brassica oleracea
AAC05981.1	AF049706	Chloroplast Glycine max	CAB41879.1	Y18260	Brassica oleracea
AAA74360.1	L33912	Zea mays	AAA33000.1	M76647	Brassica oleracea
AAA16972.1	L11529	Daucus carota	BAA92836.1	AB032473	Brassica oleracea
SEQ ID NO. 1745			BAA23676.1	AB000970	Brassica rapa
AAF82791.1	AF275316	Lotus japonicus	CAA74662.1	Y14286	Brassica oleracea
CAB45652.1	AJ243308	Pisum sativum	AAA33008.1	M97667	Brassica napus
BAA04257.1	D17443	Oryza sativa	CAB89179.1	AJ245479	Brassica napus subsp. napus
CAB40742.1	AJ237751	Nicotiana tabacum	CAB41878.1	Y18259	Brassica oleracea
AAF61465.1	AF139816	Triticum aestivum			
BAB40142.1	AB058679	Pyrus communis			



CAA79355.1	Z18921	Brassica oleracea	AAC84001.1	AF063248	Picea abies
BAA21132.1	D88193	Brassica rapa	AAC33008.1	AF080104	Pisum sativum
BAA06285.1	D30049	Brassica rapa	AAD00692.1	U90092	Picea mariana
BAA92837.1	AB032474	Brassica oleracea	AAC32262.1	AF063307	Pisum sativum
BAB21001.1	AB054061	Brassica rapa	BAA03959.1	D16507	Oryza sativa
BAA07577.2	D38564	Brassica rapa	AAG27464.1	AF308454	Medicago truncatula
BAA07576.1	D38563	Brassica rapa	AAD00691.1	U90091	Picea mariana
AAD52097.1	AF088885	Nicotiana tabacum	AAC32817.1	AF050180	Oryza sativa
AAK21965.1	AY028699	Brassica napus	BAA79226.1	AB028885	Oryza sativa
AAG16628.1	AY007545	Brassica napus	BAA79224.1	AB028883	Oryza sativa
AAG03090.1	AC073405	Oryza sativa	BAA77818.1	AB007624	Oryza sativa
CAB51836.1	AJ243961	Oryza sativa	AAE23753.2	AF193813	Brassica oleracea
BAA94509.1	AB041503	Populus nigra	AAD00251.1	U76407	Lycopersicon esculentum
AAA33915.1	L27821	Oryza sativa	CAA96510.1	Z71978	Malus x domestica
			BAA31688.1	AB016071	Oryza sativa
			BAA77817.1	AB007623	Oryza sativa
		Vitis riparia	BAB18582.1	AB043954	Ceratopteris richardii
			BAA76903.1	AB025713	Nicotiana tabacum
			AAD00252.1	U76408	Lycopersicon esculentum
		Capsicum chacoense	BAB18584.1	AB043956	Ceratopteris richardii
		Solanum tuberosum	CAA96511.1	Z71979	Malus x domestica
			AAA20882.1	L13663	Glycine max
			CAB88029.1	AJ276389	Dendrobium grex Madame Thong-In
SEQ ID NO. 1753			SEQ ID NO. 1759		
AAF37267.1	AF220406		AAB71417.1	U81287	Pisum sativum
			BAA22083.1	D28862	Nicotiana sylvestris
			CAA05729.1	AJ002894	Oryza sativa
			BAA05170.1	D26182	Nicotiana sylvestris
			CAA40862.1	X57662	Sorghum bicolor
			AAB07749.1	U49482	Hordeum vulgare
			AAA75104.1	U32310	Triticum aestivum
			AAG23220.1	AF310215	Sorghum bicolor
			CAA88558.1	Z48624	Hordeum vulgare
			CAA78513.1	Z14143	Brassica napus
			AAB88616.1	AF034945	Zea mays
			CAA41152.1	X58146	Daucus carota
			AAA59213.1	L31377	Sinapis alba
			BAA03742.1	D16205	Nicotiana sylvestris
			AAC50020.1	AF005359	Nicotiana glutinosa
			AAB66884.1	AF010579	Oryza sativa
SEQ ID NO. 1755					
AAF09256.1	AF202179				
CAB50786.1	AJ011801				
SEQ ID NO. 1758					
CAA96512.1	Z71980	Malus x domestica			
BAA25921.1	AB004797	Nicotiana tabacum			
AAD09582.1	U76409	Lycopersicon esculentum			
AAC49918.1	AF000142	Lycopersicon esculentum			
BAA08552.1	D49704	Oryza sativa			
BAB18585.1	AB043957	Ceratopteris richardii			
AAD00253.1	U76410	Lycopersicon esculentum			
CAA82314.1	Z29073	Brassica napus			
BAA77822.1	AB007628	Oryza sativa			
BAA77823.1	AB007629	Oryza sativa			
AAB81079.1	AF022390	Hordeum vulgare			
AAF32399.1	AF224499	Triticum aestivum			
BAA76750.1	AB025573	Nicotiana tabacum			
AAF32400.1	AF224500	Triticum aestivum			
AAC49917.1	AF000141	Lycopersicon esculentum			
BAA25546.1	AB004785	Nicotiana tabacum			
AAF32398.1	AF224498	Triticum aestivum			
AAD13611.1	AF100455	Zea mays			

AAA59212.1	L31374	Sinapis alba	AAC61839.1	AF025430	Papaver somniferum
CAA05728.1	AJ002893	Oryza sativa	SEQ ID NO. 1766		
AAC61786.1	AF036339	Euphorbia esula	AAF19196.1	AF206320	Musa acuminata
AAB63582.1	AF009004	Pelargonium x hortorum	AAF63756.1	AF243475	Vitis vinifera
AAB63581.1	AF009003	Pelargonium x hortorum	AAF19195.1	AF206319	Musa acuminata
BAA03741.1	D16204	Nicotiana sylvestris	CAA63496.1	X92943	Musa acuminata
BAA66885.1	AF010580	Oryza sativa	CAA70735.1	Y09541	Zinnia elegans
AAB63589.1	AF009411	Oryza sativa	AAB71208.1	Y63550	Fragaria x ananassa
AAD48471.1	AF169205	Glycine max	AA86241.1	U41472	Medicago sativa
CAA43431.1	X61121	Zea mays	CAA47630.1	X67158	Nicotiana tabacum
BAA92156.1	AB007819	Citrus unshiu	CAA43414.1	X61102	Nicotiana tabacum
BAA03743.1	D16206	Nicotiana sylvestris	CAA43413.1	X61101	Nicotiana tabacum
AAC61787.1	AF031933	Euphorbia esula	CAA47631.1	X67159	Nicotiana tabacum
AAB65412.1	AF011331	Oryza sativa	SEQ ID NO. 1767		
CAA40863.1	X57663	Sorghum bicolor	AAD55566.1	AF110784	Volvox carteri f. nagariensis
AAB61213.1	AF001894	Oryza sativa	AAD02059.1	AF036939	Chlamydomonas reinhardtii
AAF06329.1	AF191305	Medicago sativa	AAC49896.1	AF027727	Chlamydomonas reinhardtii
AAK01176.1	AF315811	Triticum aestivum	AAD28260.1	AF131223	Datisca glomerata
BAA12064.1	D83696	Nicotiana sylvestris	AAA19660.1	U11496	Triticum aestivum
CAA46233.1	X65117	Nicotiana plumbaginifolia	CAC21230.1	AJ277379	Triticum turgidum subsp. durum
AAA79045.1	U34742	Spinacia oleracea	CAC21228.1	AJ277377	Triticum turgidum subsp. durum
SEQ ID NO. 1760			AA805641.1	U41385	Ricinus communis
CAA69336.1	Y08680	Alnus glutinosa	CAA77575.1	Z11499	Medicago sativa
AAB80947.1	AF022915	Triticum aestivum	CAC21231.1	AJ277380	Triticum turgidum subsp. durum
SEQ ID NO. 1762			CAC21229.1	AJ277378	Triticum turgidum subsp. durum
AAD17487.1	AF049347	Berberis stolonifera	BAB16780.1	AB047268	Cucumis sativus
AAB20352.1	S65550	Eschscholzia californica	BAA92322.1	AB039278	Oryza sativa
AAC39358.1	AF005655	Eschscholzia californica	CAA72092.1	Y11209	Nicotiana tabacum
AAC61839.1	AF025430	Papaver somniferum	SEQ ID NO. 1769		
SEQ ID NO. 1763			AAF74566.1	AF215852	Nicotiana tabacum
BAA96221.1	AP002094	Oryza sativa	AAG43998.1	AF215837	Apium graveolens var. dulce
AAD32141.1	AF123503	Nicotiana tabacum	AAF74565.1	AF215851	Spinacia oleracea
CAA42636.1	X60033	Glycine max	AAF74568.1	AF215854	Zea mays
SEQ ID NO. 1765			AAF74567.1	AF215853	Solanum tuberosum
AAD17487.1	AF049347	Berberis stolonifera	CAA47324.1	X66856	Nicotiana tabacum
AAB20352.1	S65550	Eschscholzia californica	CAA04511.1	AJ001061	Vitis vinifera
AAC39358.1	AF005655	Eschscholzia californica	AAB06594.1	U38651	Medicago truncatula
			CAA09419.1	AJ010942	Lycopersicon esculentum

CAB52689.1	AJ132224	Lycopersicon esculentum	AAC97157.1	U69482	Picea mariana
CAA70777.1	Y09590	Vitis vinifera	AAC97146.1	U46582	Picea mariana
BAB19864.1	AB052885	Oryza sativa	AAD09342.1	AF023615	Pinus radiata
CAA68813.1	Y07520	Chlorella kessleri	AAF04972.1	AF091458	Oryza sativa
CAA39036.1	X55349	Chlorella kessleri	AAK21254.1	AF335241	Petunia x hybrida
CAA53192.1	X75440	Chlorella kessleri	AAB00081.1	L46400	Zea mays
BAB19863.1	AB052884	Oryza sativa	AAD10626.1	AF035379	Lolium temulentum
CAB06079.1	Z83829	Picea abies	CAB97354.1	AJ249146	Hordeum vulgare
BAB19862.1	AB052883	Oryza sativa	AAA99964.1	L37528	Oryza sativa
AAD55054.1	AF173655	Beta vulgaris	AAD10625.1	AF035378	Lolium temulentum
CAB52688.1	AJ132223	Lycopersicon esculentum	AAB64250.1	U78782	Oryza sativa
BAA85398.1	AP000615	Oryza sativa	SEQ ID NO. 1778		
CAB52690.1	AJ132225	Lycopersicon esculentum	CAA56123.1	X79675	Nicotiana tabacum
CAC28219.1	AJ286744	Sesbania rostrata	CAA51273.2	X72743	Populus x generosa
AAB81347.1	AF000355	Medicago truncatula	AAA73555.1	L36436	Glycine max
AAB81346.1	AF000354	Medicago truncatula	AAA34264.1	M60599	Triticum aestivum
AAK01938.1	AY026321	Lupinus albus	AAA34263.1	M60598	Triticum aestivum
BAB21562.1	AB042951	Nicotiana tabacum	AAB04021.1	U61730	Coix lacryma-jobi
SEQ ID NO. 1772			AAF44718.1	L77616	Oryza sativa
BAB08199.1	AP002539	Oryza sativa	CAA37038.1	X52850	Zea mays
BAA96760.1	AP002521	Oryza sativa	CAA55659.1	X79060	Nicotiana sylvestris
SEQ ID NO. 1776			SEQ ID NO. 1780		
AAB41526.1	U25696	Sinapis alba	AAD09343.1	AF026538	Hordeum vulgare
CAA53782.1	X76188	Nicotiana tabacum	SEQ ID NO. 1783		
AAC33475.1	AF082531	Pimpinella brachycarpa	AAC49528.1	U56834	Petroselinum crispum
AAK21257.1	AF335244	Petunia x hybrida	AAC49527.1	U48831	Petroselinum crispum
AAK21251.1	AF335238	Petunia x hybrida	AAD27591.1	AF121354	Petroselinum crispum
AAK21252.1	AF335239	Petunia x hybrida	SEQ ID NO. 1785		
AAG43199.1	AF112148	Zea mays	AAG35658.1	AF204925	Petroselinum crispum
AAK21253.1	AF335240	Petunia x hybrida	BAA87058.1	AB028022	Nicotiana tabacum
BAA81886.1	AB003328	Oryza sativa	BAA86031.1	AB026890	Nicotiana tabacum
AAF19968.1	AF207699	Elaeis guineensis	AAD16139.1	AF096299	Nicotiana tabacum
AAD38369.1	AF141965	Oryza sativa	BAA77383.1	AB020590	Nicotiana tabacum
AAB58907.1	U76726	Pinus radiata	AAF23898.1	AF193802	Oryza sativa
AAG43200.1	AF112150	Zea mays	AAD55974.1	AF121353	Petroselinum crispum
BAA85630.1	AB022665	Gnetum parvifolium	BAA82107.1	AB022693	Nicotiana tabacum
CAB56800.1	AJ011675	Oryza sativa	BAB16432.1	AB041520	Nicotiana tabacum
AAD01266.1	AF006210	Pinus resinosa			
CA97158.1	U69483	Picea mariana			

AAD16138.1	AF096298	Nicotiana tabacum
AAD27591.1	AF121354	Petroselinum crispum
AAF61864.1	AF193771	Nicotiana tabacum
AAG35659.1	AF204926	Petroselinum crispum
AAF61863.1	AF193770	Nicotiana tabacum
 SEQ ID NO. 1786		
BAA07395.1	D38220	Brassica napus
BAA07394.1	D38219	Brassica napus
CAA32218.1	X14060	Lycopersicon esculentum
AAA33712.1	L11563	Petunia x hybrida
AAG30576.1	AF314093	Ricinus communis
CAA32217.1	X14059	Nicotiana tabacum
CAA32216.1	X14058	Nicotiana tabacum
AAA33114.1	M33154	Cucurbita maxima
AAB52786.1	U95317	Solanum tuberosum
AAB18985.1	U76701	Solanum tuberosum
AAA34033.1	M32600	Spinacia oleracea
BAA13047.1	D86226	Spinacia oleracea
CAAR38031.1	X54097	Betula pendula
CAA56696.1	X80670	Lotus japonicus
AAAY9540.1	U01029	Phaseolus vulgaris
CAAS8909.1	X84103	Cichorium intybus
AAD19790.1	AF055369	Glycine max
AAAR6813.1	U13987	Glycine max
CAA40976.1	X57845	Hordeum vulgare
AAAR6727.1	L23854	Glycine max
CAA37672.1	X53603	Phaseolus vulgaris
CAAR33819.1	X15820	Oryza sativa
AAD38068.1	AF153448	Zea mays
CAA40975.1	X57844	Hordeum vulgare
AAB93560.1	AF022780	Glycine max
AAA62316.1	U20450	Zea mays
CAA42739.1	X60173	Hordeum vulgare
AAF17595.1	AF203033	Chlamydomonas reinhardtii
CAA45497.1	X64136	Volvox carterii
AAC49460.1	U39931	Chlorella vulgaris
AAC49459.1	U39930	Chlorella vulgaris
CAA29497.1	X06134	Nicotiana tabacum
AAA18377.1	U08029	Spinacia oleracea
AAB39553.1	U64308	Agrostemma githago
 Zea mays		
 Zea mays		
 Agrostemma githago		
 Agrostemma githago		
 Oryza sativa		
 Cichorium intybus		
 Glycine max		
 Chlorella vulgaris		
 Zea mays		
 Zea mays		
 Avena strigosa		
 Hordeum chilense		
 Hordeum pusillum		
 Hordeum stenostachys		
 Camptotheca acuminata		
 Camptotheca acuminata		
 Oryza sativa		
 Zea mays		
 Zea mays		
 Chlamydomonas reinhardtii		
 Mitochondrion Marchantia		
 Fuchsia hybrid cultivar Qiu		
 Fuchsia hybrid cultivar Qiu		
 Cucurbita maxima		
 Lycopersicon esculentum		
 Hordeum vulgare		
 Taxus cuspidata		
 Sorghum bicolor		
 Cicer arletinum		
 Cicer arletinum		
 Glycyrrhiza echinata		
 Glycyrrhiza echinata		
 SEQ ID NO. 1793		
AAB97526.1	AF042321	Camptotheca acuminata
AAB97087.1	AF042320	Camptotheca acuminata
BAA19928.1	AB003491	Oryza sativa
AAA33491.1	M76685	Zea mays
AAA33490.1	M76684	Zea mays
AAC25986.1	AF047024	Chlamydomonas reinhardtii
 SEQ ID NO. 1797		
AAC09414.1	M68929	Mitochondrion Marchantia
 polymorpha		
AAG32322.1	AF287344	Fuchsia hybrid cultivar Qiu
 94208		
AAG32321.1	AF287343	Fuchsia hybrid cultivar Qiu
 94208		
 SEQ ID NO. 1799		
AAG41777.1	AF212991	Cucurbita maxima
AAB17070.1	U54770	Lycopersicon esculentum
AAK11616.1	AF326277	Hordeum vulgare
AAK00946.1	AF318211	Taxus cuspidata
AAC49659.1	U74319	Sorghum bicolor
CBA41490.1	AJ238439	Cicer arletinum
CAA10067.1	AJ012581	Cicer arletinum
BAA22422.1	AB001379	Glycyrrhiza echinata
BAA74465.1	AB022732	Glycyrrhiza echinata

CAA83941.1	Z33875	Mentha x piperita	BAB41022.1	AB047095	Vitis vinifera
CAB56503.1	AJ238612	Catharanthus roseus	BAB41019.1	AB047092	Vitis vinifera
AAD44150.1	AF124815	Mentha spicata	AAB81682.1	AF000371	Vitis vinifera
CAB43505.1	AJ239051	Cicer arietinum	BAB41025.1	AB047098	Vitis vinifera
CAB56742.1	AJ249800	Cicer arietinum	BAB41023.1	AB047096	Vitis vinifera
BAB40322.1	AB036772	Triticum aestivum	BAB41021.1	AB047094	Vitis vinifera
AAF34530.1	AF195809	Vigna radiata	BAB41026.1	AB047099	Vitis vinifera
AAF45142.1	AF195818	Glycine max	BAB41024.1	AB047097	Vitis vinifera
AAF34533.1	AF195812	Pisum sativum	BAB41018.1	AB047091	Vitis labrusca x Vitis vin
BAA93634.1	AB025016	Lotus japonicus	BAA19659.1	AB002818	Perilla frutescens
AAF34536.1	AF195815	Trifolium repens	BAA89008.1	AB027454	Petunia x hybrida
AAD38929.1	AF135484	Glycine max	AAB86473.1	AF028237	Ipomoea purpurea
AAB94591.1	AF022462	Glycine max	SEQ ID NO. 1807		
AAF45143.1	AF195819	Glycine max	AAA59212.1	L31374	Sinapis alba
AAF34532.1	AF195811	Trifolium pratense	AAA59213.1	L31377	Sinapis alba
AAF34531.1	AF195810	Trifolium pratense	CAA78513.1	Z14143	Brassica napus
AAF34529.1	AF195808	Vigna radiata	CAA40862.1	X57662	Sorghum bicolor
AAF34528.1	AF195807	Vigna radiata	AAG23220.1	AF310215	Sorghum bicolor
AAA17732.1	LI9074	Catharanthus roseus	CAA41152.1	X58146	Daucus carota
SEQ ID NO. 1802			AAB66884.1	AF010579	Oryza sativa
AAF61647.1	AF190634	Nicotiana tabacum	AAB63582.1	AF009004	Pelargonium x hortorum
BAA36423.1	AB013598	Verbena x hybrida	AAB63581.1	AF009003	Pelargonium x hortorum
BAA89009.1	AB027455	Petunia x hybrida	AAD48471.1	AF169205	Glycine max
BAA36421.1	AB013596	Perilla frutescens	AAB07749.1	U49482	Hordeum vulgare
BAA93039.1	AB033758	Citrus unshiu	BAA03741.1	D16204	Nicotiana sylvestris
BAA36422.1	AB013597	Perilla frutescens	CAA88558.1	Z48624	Hordeum vulgare
AAF98390.1	AF287143	Brassica napus	AAC61786.1	AF036339	Euphorbia esula
AAF17077.1	AF199453	Sorghum bicolor	AAA75104.1	U32310	Triticum aestivum
AAB36653.1	U32644	Nicotiana tabacum	BAA92156.1	AB007819	Citrus unshiu
AAK28303.1	AF346431	Nicotiana tabacum	BAA03742.1	D16205	Nicotiana sylvestris
BAA83484.1	AB031274	Scutellaria baicalensis	AAC50020.1	AF005359	Nicotiana glutinosa
AAD21086.1	AF127218	Forsythia x intermedia	AAB63589.1	AF009411	Oryza sativa
AAB36652.1	U32643	Nicotiana tabacum	CAA05728.1	AJ002893	Oryza sativa
AAK28304.1	AF346432	Nicotiana tabacum	AAB66885.1	AF010580	Oryza sativa
CAA59450.1	X85138	Lycopersicon esculentum	BAA03743.1	D16206	Nicotiana sylvestris
CAB56231.1	Y18871	Dorotheanthus bellidiformis	AAC61787.1	AF031933	Euphorbia esula
BAA12737.1	D85186	Gentiana triflora	CAA43431.1	X61121	Zea mays
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	AAB65412.1	AF011331	Oryza sativa
AAB81683.1	AF000372	Vitis vinifera	AAB88616.1	AF034945	Zea mays
BAB41020.1	AB047093	Vitis vinifera	AAB61213.1	AF001894	Oryza sativa

AAF06329.1	AF191305	Medicago sativa	BAB32871.1	AB056063	Oryza sativa
BAA12064.1	D83696	Nicotiana sylvestris	CAA50719.1	X71900	Lycopersicon esculentum
AAK01176.1	AF315811	Triticum aestivum	SEQ ID NO. 1811		
CAA05729.1	AJ002894	Oryza sativa	AAB50679.1	S80863	Rosa hybrid cultivar
AAW1417.1	U81287	Pisum sativum	BAA23136.1	D49385	Rosa hybrid cultivar
BAA22083.1	D28862	Nicotiana sylvestris	BAA23135.1	D49384	Rosa hybrid cultivar
			BAA23134.1	D49383	Rosa hybrid cultivar
			AAG28599.1	AF247133	Limnathes douglasii
SEQ ID NO. 1808			SEQ ID NO. 1812		
AAB00554.1	U54703	Phaseolus vulgaris	AAF17077.1	AF199453	Sorghum bicolor
CAA78515.1	Z14145	Pisum sativum	AAF61647.1	AF190634	Nicotiana tabacum
AAB53203.1	U69633	Solanum tuberosum	AAF98390.1	AF287143	Brassica napus
AAD02259.1	AF043093	Hordeum vulgare	BAA93039.1	AB033758	Citrus unshiu
AAF01696.1	AF181458	Hordeum vulgare	BAA89009.1	AB027455	Petunia x hybrida
AAB18202.1	U73211	Triticum aestivum	BAA36421.1	AB013596	Perilla frutescens
AAB18201.1	U73210	Triticum aestivum	BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera
AAC02689.1	AF044584	Lavatera thuringiaca	BAA83484.1	AB031274	Scutellaria baicalensis
CAB93666.1	AJ289610	Pinus sylvestris	BAB41026.1	AB047099	Vitis vinifera
AAD02252.1	AF043086	Hordeum vulgare	BAB41024.1	AB047097	Vitis vinifera
AAF01699.1	AF181461	Hordeum vulgare	BAB41020.1	AB047093	Vitis vinifera
AAD50291.1	AF172263	Prunus dulcis	BAB41022.1	AB047095	Vitis vinifera
CAA09421.1	AJ010944	Helianthus annuus	BAB41019.1	AB047092	Vitis vinifera
CAA05713.1	AJ002741	Helianthus annuus	BAB41025.1	AB047098	Vitis vinifera
AAF60172.1	AF236067	Elaeis guineensis	BAB41023.1	AB047096	Vitis vinifera
AAA19693.1	U11696	Sorghum bicolor	BAB41021.1	AB047094	Vitis vinifera
AAB71225.1	AF004807	Glycine max	AAD21086.1	AF127218	Forsythia x intermedia
AAB05927.1	U63831	Sorghum bicolor	BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera
CAA63339.1	X92647	Helianthus annuus	AAAB1682.1	AF000371	Vitis vinifera
CAA33364.1	X15290	Zea mays	AAAB1683.1	AF000372	Vitis vinifera
CAA66970.1	X98326	Hordeum vulgare	BAA36423.1	AB013598	Verbena x hybrida
CAA33363.1	X15289	Hordeum vulgare	BAA36422.1	AB013597	Perilla frutescens
SEQ ID NO. 1810			AAAB36652.1	U32643	Nicotiana tabacum
AAA33710.1	L16977	Petunia x hybrida	AAK28304.1	AF346432	Nicotiana tabacum
AAA33709.1	L16797	Petunia x hybrida	CAA30760.1	X07937	Zea mays
AAC24195.1	AF020425	Nicotiana tabacum	AAAB36653.1	U32644	Nicotiana tabacum
AAB40608.1	U54774	Nicotiana tabacum	AAK28303.1	AF346431	Nicotiana tabacum
AAK18620.1	AF352732	Nicotiana tabacum	CAA31855.1	X13500	Zea mays
AAC39483.1	AF020424	Nicotiana tabacum	CAA30761.1	X07940	Zea mays
BAB32870.1	AB056062	Oryza sativa	AAK16410.1	AF320086	Zea mays
BAB32868.1	AB056060	Oryza sativa			
BAB32869.1	AB056061	Oryza sativa			

CAB56231.1	Y18871	Dorotheanthus bellidifolius	AAB19183.1	U41189	Chlamydomonas reinhardtii
AAD26203.1	AF117267	Malus x domestica	SEQ ID NO. 1814		
BAA89008.1	AB027454	Petunia x hybrida	BAK14395.1	AF339732	Dianthus caryophyllus
BAA19659.1	AB002818	Perilla frutescens	BAB20581.1	AB042268	Zea mays
BAA12737.1	D85186	Gentiana triflora	BAB20580.1	AB042267	Zea mays
AAB86473.1	AF028237	Ipomoea purpurea	BAB20579.1	AB042261	Zea mays
CAA33729.1	X15694	Hordeum vulgare	BAA85113.1	AB031012	Zea mays
			BAA82873.1	AB024291	Zea mays
			BAB17300.1	AB042260	Zea mays
			BAA75253.1	AB004882	Zea mays
			BAA85112.1	AB031011	Zea mays
			BAB20582.1	AB042269	Zea mays
			BAB41137.1	AB060130	Zea mays
SEQ ID NO. 1813		Populus tremula x Populus	SEQ ID NO. 1815		
AAB65822.1	U55838	Populus tremula x Populus	AAB62808.1	U71108	Nicotiana tabacum
tremuloides			AAB62807.1	U71107	Nicotiana tabacum
AAC49785.1	U55837	Populus tremula x Populus	AAC34989.1	AF042333	Oryza sativa
tremuloides			AAC34951.1	U81312	Nicotiana tabacum
AAD29050.1	AF132855	Gossypium hirsutum	AAB04057.1	U43683	Glycine max
AAA86993.1	U19738	Flaveria linearis	AAB70886.1	U79669	Zea mays
AAD29049.1	AF132854	Gossypium hirsutum	AAC34988.1	AF042332	Oryza sativa subsp. japonica
AAA86942.1	U08402	Flaveria brownii	AAC04265.1	AF045570	Zea mays
AAA34027.1	J05403	Spinacia oleracea	AAC35787.1	AF053766	Nicotiana tabacum
AAA34057.1	L19255	Nicotiana tabacum	AAB49338.1	U60755	Triticum aestivum
AAA34065.1	M94135	Nicotiana tabacum	AAB37769.1	U60754	Triticum aestivum
AAA86992.1	U19737	Flaveria pringlei	AAB62812.1	U81313	Ricinus communis
AAA86939.1	U08398	Flaveria bidentis	AAF61950.1	AF237633	Spinacia oleracea
AAA34026.1	M27295	Spinacia oleracea	AAG59894.1	AF328858	Lycopersicon esculentum
AAA33652.1	M63627	Pisum sativum	SEQ ID NO. 1817		
AAD27876.2	AF139464	Vigna radiata	AAB26960.1	U63726	Glycine max
AAA86994.1	U19740	Flaveria linearis	SEQ ID NO. 1818		
CAB43571.1	AJ239132	Glycine max	AAC36699.1	AF075581	Mesembryanthemum crystallinum
CAA63712.1	X93312	Medicago sativa	AAC36697.1	AF075579	Mesembryanthemum crystallinum
AAA86944.1	U08401	Zea mays	AAD17804.1	AF092431	Lotus japonicus
BAA31953.1	AB016283	Oryza sativa	CAC10358.1	AJ277086	Nicotiana tabacum
AAD56038.1	AF182806	Oryza sativa	CAB90634.1	AJ277744	Fagus sylvatica
AAA86943.1	U08404	Oryza sativa	CAC10359.1	AJ277087	Nicotiana tabacum
AAA86945.1	U08403	Zea mays			
AAA69027.1	U19739	Urochloa panicoides			
AAA69028.1	U19741	Urochloa panicoides			
BAA95793.1	AB009887	Nicotiana tabacum			
AAF78507.1	AF195204	Pyrus pyrifolia			
AAC33484.1	U49976	Coccomyxa sp. PA			
AAC49888.1	U80805	Chlamydomonas reinhardtii			
AAC49887.1	U80804	Chlamydomonas reinhardtii			
AAB19184.1	U41190	Chlamydomonas reinhardtii			

CAC09575.1	AJ298987	Fagus sylvatica	SEQ ID NO.	1831	Sorghum bicolor
AAD11430.1	AF097667	Mesembryanthemum crystallinum	CAA73067.1	Y12464	Sorghum bicolor
AAD17805.1	AF092432	Lotus japonicus	CAA73068.1	Y12465	Oryza sativa
AAC35951.1	AF079355	Mesembryanthemum crystallinum	AAB62693.1	AF004947	Zea mays
AAC36698.1	AF075580	Mesembryanthemum crystallinum	AAF22219.1	AF141378	Oryza sativa
CAA72341.1	Y11607	Medicago sativa	BAA83688.1	AB011967	Triticum aestivum
AAC36700.1	AF075582	Mesembryanthemum crystallinum	BAA96628.1	AP002482	Oryza sativa
AAG43835.1	AF213455	Zea mays	BAA34675.1	AB011670	Oryza sativa
AAB93832.1	U81960	Zea mays	BAA83689.1	AB011968	Lycopersicon esculentum
CAC09576.1	AJ298988	Fagus sylvatica	AAF66639.1	AF143743	Glycine max
AAC26828.1	AF075603	Oryza sativa	AAD23582.1	AF128443	Cucumis sativus
			CAA71142.1	Y10036	Nicotiana tabacum
			BAA05649.1	D26602	Hordeum vulgare
			CAA57898.1	X82548	Solanum tuberosum
			CAA65244.1	X95997	Oryza sativa
			AAC99329.1	AF062479	Solanum tuberosum
			AAB52224.1	U83797	Hordeum vulgare
			CAA07813.1	AJ007990	Hordeum vulgare
			CAA46556.1	X65606	Hordeum vulgare
			CAA46554.1	X65604	Hordeum vulgare
			AAB05457.1	U55768	Oryza sativa
			AAD00239.1	U73938	Nicotiana tabacum
			CAA06503.1	AJ005373	Craterostigma plantagineum
			BAA19573.1	AB002109	Oryza sativa
			BAA13608.1	D88399	Oryza sativa
			AAG60195.1	AC084763	Oryza sativa
			AAF27340.1	AF186020	Vicia faba
			AAB68962.1	I38855	Glycine max
			AAD00240.1	U73939	Nicotiana tabacum
			CAA89202.1	Z49233	Chlamydomonas eugametos
			AAB58348.1	U29095	Triticum aestivum
			AAA96325.1	M94726	Triticum aestivum
			CAA81443.1	Z26846	Mesembryanthemum crystallinum
			AAB80692.1	U69173	Glycine max
			SEQ ID NO.	1833	Oryza sativa
			BAB21205.1	AP002913	Nicotiana tabacum
			BAA22813.1	D26015	
			SEQ ID NO.	1839	Vigna radiata
			AAF40306.1	AF156667	



CAA68193.1	X99937	Spinacia oleracea	AA04191.1	AF113950	Lactuca sativa
BAA03763.1	D16247	Nicotiana sylvestris	AAK18295.1	AF338960	Brassica oleracea
AAF75791.1	AF271892	Pisum sativum	AAG43184.1	AF107545	Brassica napus
AAD20980.1	AF079782	Zea mays	AAG43186.1	AF107547	Brassica napus
BAA95705.1	AB042644	Oryza sativa	AAK20742.1	AF325198	Triticum aestivum
BAA95704.1	AB042643	Oryza sativa	AAG43189.1	AF107550	Brassica napus
			AAK18299.1	AF338966	Brassica rapa
			AAG40143.1	AF209500	Brassica napus
SEQ ID NO. 1840		Helianthus annuus	AAF19148.1	AF158634	Aegilops ventricosa
CAA70260.1	Y09057	Helianthus annuus	AAG52747.1	AF263318	Brassica napus
AAF00549.1	AF189148		AAK18288.1	AF338951	Brassica oleracea
			CAC29242.1	AJ302293	Hordeum vulgare
SEQ ID NO. 1842		Brassica napus	CAC29241.1	AJ302292	Hordeum vulgare
AAG40131.1	AF209484	Brassica napus	AAG52755.1	AF263326	Brassica napus
AAG40133.1	AF209486	Brassica napus	AAG40134.1	AF209487	Brassica napus
AAG40132.1	AF209485	Brassica napus	AAK18305.1	AF338972	Brassica rapa
AAG40136.1	AF209490	Brassica napus	AAK20736.1	AF325196	Triticum aestivum
AAC31553.1	AF078874	Avena sativa			
AAC31552.1	AF078873	Avena sativa			
AAB96976.1	AF032679	Hordeum vulgare	SEQ ID NO. 1853		
AAF14565.1	AF181728	Brassica napus	AAC78596.1	AF053998	Lycopersicon esculentum
AAK18300.1	AF338967	Brassica rapa	AAK78591.1	AF053993	Lycopersicon esculentum
AAG40139.1	AF209494	Brassica napus	AAK78593.1	AF053995	Lycopersicon esculentum
AAB96999.1	AF032702	Oryza sativa	AAC78592.1	AF053994	Lycopersicon esculentum
AAG40140.1	AF209495	Brassica napus	AAC78594.1	AF053996	Lycopersicon pimpinellifolium
AAG40135.1	AF209489	Brassica napus	CAA05274.1	AJ002236	Lycopersicon pimpinellifolium
AAG40142.1	AF209499	Brassica napus	AAA65235.1	U15936	Lycopersicon pimpinellifolium
AAK18290.1	AF338954	Brassica oleracea	CAA05276.1	AJ002236	Lycopersicon pimpinellifolium
AAG43187.1	AF107548	Brassica napus	AAC78595.1	AF053997	Lycopersicon esculentum
AAK18301.1	AF338968	Brassica rapa	CAA05268.1	AJ002235	Lycopersicon hirsutum
AAD27815.1	AF118127	Lycopersicon esculentum	CAA05279.1	AJ002237	Lycopersicon esculentum
AAB63275.1	AF004879	Lycopersicon esculentum	BA08215.1	AP002539	Oryza sativa
AAD03157.1	AF113957	Lactuca sativa	BAA96776.1	AP002521	Oryza sativa
AAD03156.1	AF113948	Lactuca sativa	AAD50430.1	AF166121	Hordeum vulgare
AAG43188.1	AF107549	Brassica napus	CAB55409.1	AL117265	Oryza sativa
AAD03671.1	AF072271	Lactuca sativa	AAC80225.1	U72723	Oryza longistaminata
AAF14567.1	AF181730	Brassica rapa	AAC49123.1	U37133	Oryza sativa
AAG52749.1	AF263320	Brassica napus			
AAC02203.1	AF017752	Lactuca sativa	SEQ ID NO. 1854		
AAC02202.1	AF017751	Lactuca sativa	AAF06346.1	AF195653	Vitis vinifera
AAF14566.1	AF181729	Brassica oleracea	BAA28872.1	AB006009	Pyrus pyrifolia
BAA75812.1	AB019186	Oryza sativa	CAC10270.1	AJ243427	Malus x domestica



SEQ ID NO.	1859	1861	1863
AF035944	Fragaria x ananassa	AAG01179.1	Zea mays
AB017517	Marchantia polymorpha	BAA22410.1	Zea mays
AB017515	Marchantia polymorpha	AAC24961.1	Tradescantia virginiana
AB017516	Marchantia polymorpha	BAA90814.1	Oryza sativa
AB017515	Marchantia polymorpha	AAC32116.1	Picea mariana
AB017515	Marchantia polymorpha	AAD52092.1	Nicotiana tabacum
AJ007366	Zea mays	AAE21450.1	Nicotiana tabacum
U82087	Tortula ruralis		
D84408	Zea mays	SEQ ID NO.	
D87042	Zea mays	CAB82852.1	Mesembryanthemum crystallin
D85039	Zea mays	CAA50374.1	Nicotiana tabacum
U08140	Vigna radiata	CAA82991.1	Spinacia oleracea
X81394	Oryza sativa	BAB03409.1	Oryza sativa
U90262	Cucurbita pepo	CAA82994.1	Mesembryanthemum crystallin
U28376	Zea mays	CAA62476.1	Solanum tuberosum
L27484	Zea mays	AAA50304.1	Pisum sativum
AF090835	Mesembryanthemum crystallin	CAA82993.1	Spinacia oleracea
U69173	Glycine max	BAB18104.1	Chlamydomonas reinhardtii
U69174	Glycine max	BAB18105.1	Chlamydomonas reinhardtii
L15390	Zea mays	AAF66637.1	Lycopersicon esculentum
AF072908	Nicotiana tabacum	CAA66616.1	Solanum berthaultii
AF115406	Solanum tuberosum	BAA96593.1	Oryza sativa
D87707	Ipomoea batatas	CAA73068.1	Sorghum bicolor
X56599	Daucus carota	CAA73067.1	Sorghum bicolor
X96723	Medicago sativa	BAA83689.1	Oryza sativa
AP000615	Oryza sativa	BAA83688.1	Oryza sativa
X81393	Oryza sativa	BAA05649.1	Nicotiana tabacum
AF048691	Oryza sativa	AAF22219.1	Zea mays
AY027885	Cucumis sativus	CAA71142.1	Cucumis sativus
Y18055	Arachis hypogaea	AAD23582.1	Glycine max
AC073166	Oryza sativa		
D13436	Oryza sativa	SEQ ID NO.	
AF216527	Dunaliella tertiolecta	AAB01085.2	Triticum aestivum
Z49233	Chlamydomonas eugametos	AAF32492.1	Mitochondrion Triticum aestivum
AF194414	Oryza sativa	SEQ ID NO.	
AF194413	Oryza sativa	BAA77358.1	Nicotiana tabacum
AF030879	Solanum tuberosum	AAC49528.1	Petroselinum crispum
X83869	Daucus carota	AAD27591.1	Petroselinum crispum
D84508	Zea mays	AAC49529.1	Petroselinum crispum
S82324	Zea mays	CAA88326.1	Avena fatua
D84507	Zea mays		

AA49527.1	U4831	Petroselinum crispum	AA27282.1	AF122821	Capsicum annuum
AAD16139.1	AF096299	Nicotiana tabacum	BAA22422.1	AB001379	Glycyrrhiza echinata
AAD16138.1	AF096298	Nicotiana tabacum	AAA17732.1	L19074	Catharanthus roseus
CAA88331.1	Z48431	Avena fatua	CAA57423.1	X81829	Zea mays
AAC37515.1	L44134	Cucumis sativus	CAA72208.1	Y11404	Zea mays
AAF61864.1	AF193771	Nicotiana tabacum	AAF66543.1	AF140609	Triglochin maritimum
BAA87069.1	AB035271	Matricaria chamomilla	AAC39454.1	AF014802	Eschscholzia californica
AAF61863.1	AF193770	Nicotiana tabacum	CAA04117.1	AJ000478	Helianthus tuberosus
			CAA04116.1	AJ000477	Helianthus tuberosus
			AAA32913.1	M32885	Persea americana
SEQ ID NO. 1866			SEQ ID NO. 1870		
CAB40834.1	AJ005686	Vitis vinifera	AAF21800.1	AF090836	Brassica rapa subsp. pekin
AAK01360.1	AF314811	Brassica napus	CAA50004.1	X70666	Triticum aestivum
AAC14481.1	U92286	Actinidia deliciosa	CAA65313.1	X96446	Triticum aestivum
AAB67875.1	U60267	Lycopersicon esculentum	AAA32978.1	M19048	Hordeum vulgare
CAA67069.1	X98421	Medicago sativa	AAA32977.1	M19047	Hordeum vulgare
AAK01361.1	AF314812	Brassica napus	AAA32976.1	M19046	Hordeum vulgare
BAA19916.1	D49714	Oryza sativa	AAB71137.1	AF004018	Triticum aestivum
AAC18862.1	AF067967	Mesembryanthemum crystallinum	BAA12336.1	D84390	Triticum aestivum
CAA67070.1	X98422	Medicago sativa	CAA65315.1	X96448	Triticum aestivum
AAC84137.1	AF101424	Cichorium intybus	CAA50003.1	X70665	Triticum aestivum
AAB80946.1	AF022914	Triticum aestivum	CAA65316.1	X96449	Secale cereale
			CAA65312.1	X96445	Triticum aestivum
SEQ ID NO. 1867			AA91048.1	L36883	Hordeum vulgare
AAD56018.1	AF180758	Vitis riparia	CAA29330.1	X05901	Hordeum vulgare
AAF34765.1	AF227620	Euphorbia esula	AAA32966.1	M23080	Hordeum vulgare
			CAA57351.1	X81707	Tulipa gesneriana
SEQ ID NO. 1868			CAA78352.1	Z13008	Hordeum vulgare
AAG17470.1	AF123609	Triticum aestivum	AA91047.1	L36882	Hordeum vulgare
AAK31592.1	AY029178	Brassica rapa subsp. pekinensis	CAA29082.1	X05576	Hordeum vulgare
AAD10204.1	AF030260	Vicia sativa	CAA57353.1	X81709	Tulipa gesneriana
ARG33645.1	AF092917	Vicia sativa	CAA57352.1	X81708	Tulipa gesneriana
CAB41474.1	AJ238402	Catharanthus roseus	CAA57350.1	X81706	Tulipa gesneriana
AAB94586.1	AF022457	Glycine max	CAA57354.1	X81710	Tulipa gesneriana
AAD56282.1	AF155332	Petunia x hybrida	CAA65314.1	X96447	Triticum aestivum
AAD03415.1	AF069494	Sinapis alba			
CAA89260.1	Z49263	Pisum sativum			
AAC32274.1	AF081575	Petunia x hybrida	SEQ ID NO. 1872		
CAA50155.1	X70824	Solanum melongena	AAD39439.1	AF132001	Petunia x hybrida
AAF66544.1	AF140610	Triglochin maritimum	AAG32658.1	AF253970	Picea abies
AAB94590.1	AF022461	Glycine max	AAG32659.1	AF253971	Picea abies
BAA74465.1	AB022732	Glycyrrhiza echinata			

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BAA12206.1	D84061	Spinacia oleracea	SEQ ID NO. 1879	AF306518	Brassica napus
SEQ ID NO. 1879		Lycopersicon esculentum	AAG28780.1	AJ279059	Lotus japonicus
CAC21424.1	AJ278332	Pisum sativum	CAC10555.1	X95098	Lycopersicon esculentum
BAB40340.1	AB044940	Lycopersicon esculentum	CAB64475.1	AF118858	Lycopersicon esculentum
CAB43506.1	AJ242551		AAG11397.1	AF080541	Nepenthes alata
			AAD16012.1	AF188744	Brassica napus
			AAF01774.1		
SEQ ID NO. 1880		Phaseolus vulgaris	SEQ ID NO. 1888		Pisum sativum
AAC28907.1	U18349	Phaseolus vulgaris	AAG22044.1	AF305783	Dolichos biflorus
AB000686.1	U18348	Zea mays	AAF00610.1	AF156781	Glycine soja
AAD15818.1	AF061107	Petunia x hybrida	AAG32959.1	AF207687	Glycine soja
AAG25928.1	AF260919	Petunia x hybrida	AAG32960.1	AF207688	Dolichos biflorus
AAG25927.1	AF260918	Petunia x hybrida	AAD31285.1	AF139807	Lotus japonicus
AAC39455.1	AF020545	Oryza sativa	AAF00609.1	AF156780	Pisum sativum
AAC49219.1	U39860		BAB18896.1	AB038669	Pisum sativum
			BAB18895.1	AB038668	Pisum sativum
SEQ ID NO. 1881		Nicotiana tabacum	BAB18894.1	AB038555	Pisum sativum
CAB57457.2	AJ249786	Citrus sinensis	BAB18893.1	AB038554	Pisum sativum
AAB57668.1	U82974		BAB18900.1	AB027614	Pisum sativum
			BAB40230.1	AB027613	Pisum sativum
SEQ ID NO. 1882		Solanum tuberosum	BAB18890.1	AB023621	Pisum sativum
AAC29516.1	U77655	Stylosanthes hamata	BAA75506.1	AB022319	Pisum sativum
AAD00708.1	U91857	Oryza sativa	AAF00611.1	AF156782	Medicago sativa
BAB03248.1	AB037183	Nicotiana sylvestris	BAA89275.1	AB027616	Pisum sativum
BAA97123.1	AB016265	Nicotiana sylvestris	BAB40231.1	AB027615	Pisum sativum
BAA97124.1	AB016266	Nicotiana tabacum	AAB02720.1	U58597	Solanum tuberosum
BAA76734.1	AB024575	Lycopersicon esculentum	BAB18891.1	AB030444	Pisum sativum
AAC50047.1	U89255	Nicotiana sylvestris	BAB18892.1	AB030445	Pisum sativum
BAA97122.1	AB016264	Matricaria chamomilla			
BAA87068.1	AB035270	Lycopersicon esculentum	SEQ ID NO. 1889		Eucalyptus camaldulensis
AAC49741.1	U89257	Catharanthus roseus	AAF97728.1	AF176035	Eucalyptus camaldulensis
CAB96899.1	AJ251249	Catharanthus roseus	AAD53890.1	AF176036	Oryza sativa
CAB96900.1	AJ251250	Lycopersicon esculentum	AAG37274.1	AF313388	Triticum aestivum
AAC49740.1	U89256	Nicotiana tabacum	AA52749.1	U16709	
AAB38748.1	U81157	Nicotiana tabacum			
AAC62619.1	AF057373	Brassica napus	SEQ ID NO. 1890		Oryza sativa
AAD45623.1	AF084185		BAA90507.1	AP001111	Solanum tuberosum
			AAD10836.1	U52079	Oryza sativa
SEQ ID NO. 1883		Oryza sativa	BAA90508.1	AP001111	Oryza sativa
BAA92965.1	AP001551		BAA83352.1	AP000391	Oryza sativa

CAA944437.1	Z70524	Spirodela polyrrhiza	CAA12231.1	AJ224932	Lycopersicon esculentum
BAA94511.1	AB041505	Populus nigra	CAA12233.1	AJ224934	Lycopersicon esculentum
SEQ ID NO. 1894			AAB94923.1	AF038386	Capsicum annuum
AAG13131.1	AF193791	Fragaria x ananassa	CAA72091.1	Y11208	Nicotiana tabacum
BAB08208.1	AP002539	Oryza sativa	CAB88668.1	AJ400863	Cicer arietinum
BAA96769.1	AP002521	Oryza sativa	CAA42530.1	X59873	Triticum aestivum
AAB40530.1	U38199	Oryza sativa	AAB04688.1	U08226	Zea mays
AAA90948.1	U27350	Oryza sativa	CAA12230.1	AJ224931	Lycopersicon esculentum
CAA57447.1	X81854	Oryza sativa	CAA40564.1	X57312	Zea mays
CAA91445.1	Z66544	Nicotiana tabacum	CAA49584.1	X69960	Zea mays
AAA68290.1	U07339	Pisum sativum	CAA57778.1	X82362	Asparagus officinalis
AAC49442.1	U26660	Oryza sativa	CAA40565.1	X57313	Zea mays
CAA35589.1	X17555	Oryza sativa	CAA49585.1	X69961	Zea mays
CAA42120.1	X59546	Zea mays	BAA07156.1	D37942	Triticum aestivum
AAA68289.1	U07338	Zea mays	BAA07157.1	D37943	Triticum aestivum
CAA57448.1	X81855	Oryza sativa	BAA07159.1	D37945	Triticum aestivum
AAG22488.1	AF195868	Nicotiana tabacum	AAA98454.1	U16726	Chlamydomonas reinhardtii
CAA91444.1	Z66543	Vitis vinifera	AAA98450.1	U16725	Chlamydomonas reinhardtii
CAB61763.1	AJ251245	Pisum sativum	AAA98446.1	U16724	Chlamydomonas reinhardtii
CAA63404.1	X92743	Saccharum officinarum	AAA34248.1	M31921	Volvox carteri
BAA03354.1	D14457	Oryza sativa	AAA34250.1	M31922	Volvox carteri
CAA79819.1	Z21722	Zea mays	AAC05126.1	AF048824	Malus x domestica
BAA03353.1	D14456	Zea mays	CAA64986.1	X95690	Allium cepa
CAA79818.1	Z21721	Zea mays	BAA07158.1	D37944	Triticum aestivum
SEQ ID NO. 1895			CAA64987.1	X95691	Allium cepa
CAA80559.1	Z23023	Solanum tuberosum	BAA96095.1	AB003780	Lilium longiflorum
CAA12157.1	AJ224847	Zea mays	SEQ ID NO. 1909		
CAA54986.1	X78069	Flaveria pringlei	CAC26921.1	AJ295607	Arabidopsis lyrata subsp.
CAA45772.1	X64434	Mesembryanthemum crystallinum	petraea		
AAB08874.1	U67426	Vitis vinifera	BAA36553.1	AB011795	Citrus sinensis
AAA67087.1	L34836	Vitis vinifera	AAD56577.1	AF184270	Daucus carota
CAB66003.1	AJ132257	Apium graveolens	AAC49929.1	AF022142	Petunia x hybrida
AAA34174.1	L27509	Lycopersicon esculentum	BAA75309.1	AB023790	Ipomoea batatas
AAD11429.1	AF097666	Mesembryanthemum crystallinum	BAA75308.1	AB023789	Ipomoea batatas
AAA83963.1	L35306	Lycopersicon esculentum	AAD26206.1	AF117270	Malus x domestica
BAA76435.1	AB025007	Cicer arietinum	AAB41102.1	U74081	Ipomoea purpurea
SEQ ID NO. 1896			CAA53579.1	X75965	Vitis vinifera
AAB97163.1	AF025667	Gossypium hirsutum	BAA21897.1	D83041	Ipomoea nil
			CAA57410.1	X81812	Medicago sativa
			CAA55628.1	X78994	Medicago sativa

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AAD03741.1	AF111812	Brassica napus	CAC10358.1	AJ277086	Nicotiana tabacum
CAA55923.1	X79378	Sorghum bicolor	AAC36698.1	AF075580	Mesembryanthemum crystallin
AAB38512.1	U81047	Pisum sativum	CAC10359.1	AJ277087	Nicotiana tabacum
AAB38511.1	U81046	Pisum sativum	AAG43835.1	AF213455	Zea mays
AAB18642.1	U76191	Pisum sativum	CAC09575.1	AJ298987	Fagus sylvatica
AAB18641.1	U76190	Pisum sativum	CAB90634.1	AJ277744	Fagus sylvatica
CAA62028.1	X90378	Pisum sativum	AAC35951.1	AF079355	Mesembryanthemum crystallin
CAA34356.1	X16280	Oryza sativa	AAD11430.1	AF097667	Mesembryanthemum crystallin
CAA47899.1	X67666	Pisum sativum	AAC36700.1	AF075582	Mesembryanthemum crystallin
AAF82805.1	AF282624	Helianthus annuus	CAC09576.1	AJ298988	Fagus sylvatica
CRA48609.1	X68649	Pisum sativum	AAC26828.1	AF075603	Oryza sativa
AAC16054.1	AF061019	Coleochaete scutata	AAB93832.1	U81960	Zea mays
AAB38514.1	U81049	Pisum sativum	AAC36699.1	AF075581	Mesembryanthemum crystallin
AAB18644.1	U76193	Pisum sativum	SEQ ID NO. 1927		
AAC64127.1	AF091809	Anemia phyllitidis	AAG02411.1	AF284038	Cucurbita maxima
CRA39279.1	X55750	Solanum tuberosum	CAA72274.1	Y11486	Triticum aestivum
AAD02328.1	AF044573	Brassica oleracea	CAB52709.1	AJ245878	Triticum aestivum
CRA23728.1	V00450	Glycine max	CAB52710.1	AJ245879	Triticum aestivum
AAC16055.1	AF061020	Mesostigma viride	CAA66232.1	X97636	Hordeum vulgare
AAC64128.1	AF091810	Anemia phyllitidis	CAA72273.1	Y11485	Triticum aestivum
AAC05272.1	AF049106	Glycine max	CAA64599.1	X95277	Hordeum vulgare
AAF87302.1	AF281323	Magnolia denudata	CAA90071.1	Z49890	Triticum aestivum
BAA09450.1	D50839	Chlamydomonas reinhardtii	BAA88536.1	AF000969	Oryza sativa
BAA09449.1	D50838	Chlamydomonas reinhardtii	SEQ ID NO. 1928		
AAA34243.1	M33963	Volvox carteri	AAC35846.1	AF083333	Medicago sativa
AAA33433.1	J01238	Zea mays	AAA74882.1	L36823	Stylosanthes humilis
AAC16053.1	AF061018	Scherffelia dubia	AAK28509.1	AF320110	Fragaria x ananassa
CRA33873.1	X15864	Oryza sativa	AAD10327.1	U63534	Fragaria x ananassa
CRA33871.1	X15862	Oryza sativa	AAB38503.1	U79770	Mesembryanthemum crystallinum
AAA33940.1	J01297	Glycine max	AAC15467.1	U24561	Apium graveolens
AAC64126.1	AF091808	Anemia phyllitidis	AAC61854.1	AF067082	Apium graveolens
AAD48335.1	AF090969	Selaginella apoda	AAA74883.1	L36456	Stylosanthes humilis
AAD48336.1	AF090970	Cosmarium botrytis	CAA86072.1	Z37991	Pinus taeda
CRA39276.1	X55746	Solanum tuberosum	CAA51226.1	X72675	Picea abies
SEQ ID NO. 1925			CAA05097.1	AJ001926	Picea abies
CAA72341.1	Y11607	Medicago sativa	CAA05096.1	AJ001925	Picea abies
AAD17804.1	AF092431	Lotus japonicus	AAB38774.1	U62394	Pinus radiata
AAD17805.1	AF092432	Lotus japonicus	CAA05095.1	AJ001924	Picea abies
CAB90633.1	AJ277743	Fagus sylvatica	CAA86073.1	Z37992	Pinus taeda
AAC36697.1	AF075579	Mesembryanthemum crystallinum			

[illegible]

[illegible]

SEQ ID NO. 1942	AAA34138.1	Papaver somniferum	M96324	Lycopersicon esculentum
AAC61839.1	ANB58910.1	Eschscholzia californica	U82966	Oryza sativa
AAC39358.1	AAD11617.1	Eschscholzia californica	AF050495	Lycopersicon esculentum
AAB20352.1	AAG28435.1	Eschscholzia californica	AF195028	Glycine max
AAD17487.1	AAG28436.1	Berberis stolonifera	AF195029	Glycine max
	CAA68234.1		X99972	Brassica oleracea
	AAD31896.1		AF145478	Mesembryanthemum crystalli:
	AAB60276.1		U09989	Zea mays
SEQ ID NO. 1943	CAB69824.1	Nicotiana tabacum	AJ271439	Prunus persica
CAA72093.1	AAD46187.1		AF156683	Nicotiana plumbaginifolia
	BAA01058.1		D10207	Oryza sativa
	AAB49042.1		U54690	Dunaliella acidophila
	AAA34173.1	Nicotiana tabacum	M60166	Lycopersicon esculentum
	CAA52107.1		X73901	Dunaliella bioculata
	AAB35314.2		S79323	Vicia faba
	BAA06629.1		D31843	Oryza sativa
SEQ ID NO. 1950	AAA34094.1	Hemerocallis hybrid cultivar	M80489	Nicotiana plumbaginifolia
AAC34855.1	BAA08134.1		D45189	Zostera marina
	CAB85494.1	Pinus radiata	AJ132891	Medicago truncatula
	CAA52107.1	Lolium perenne	AJ132892	Medicago truncatula
	AAB35314.2	Lolium perenne	AF029256	Kosteletzkya virginica
	BAA06629.1	Lolium perenne	X66737	Nicotiana plumbaginifolia
	AAA34094.1	Holcus lanatus	X76535	Solanum tuberosum
	BAA08134.1	Holcus lanatus	AF156679	Nicotiana plumbaginifolia
	CAB85494.1	Holcus lanatus	U72148	Lycopersicon esculentum
	CAA52107.1	Phleum pratense	AJ271438	Prunus persica
	AAB35314.2	Poa pratensis	U84891	Mesembryanthemum crystallinum
	BAA06629.1	Oryza sativa	AJ310524	Vicia faba
	AAA34094.1	Glycine max	AB022442	Vicia faba
	BAA08134.1	Phleum pratense	X85805	Zea mays
	CAB85494.1	Phalaris aquatica	X85804	Phaseolus vulgaris
	CAA52107.1	Cynodon dactylon	AJ310523	Vicia faba
	AAB35314.2	Nicotiana tabacum	AF156691	Nicotiana plumbaginifolia
	BAA06629.1	Cynodon dactylon	M80491	Nicotiana plumbaginifolia
	AAA34094.1	Triticum aestivum	M27888	Nicotiana plumbaginifolia
	AAA34052.1	Cucumis sativus	X76536	Solanum tuberosum
	CAA54046.1		M80490	Nicotiana plumbaginifolia
	AAA34098.1		AF179442	Lycopersicon esculentum
	AAD55399.1	Oryza sativa	AF275745	Lycopersicon esculentum
	AAF98344.1	Zea mays	AF289025	Cucumis sativus
	AAG01028.1	Dunaliella bioculata	AY029190	Lilium longiflorum
	AAK31799.1	Lycopersicon esculentum		
SEQ ID NO. 1957	BAA90510.2			
	AAF001111			
	AAF73985.1			
	CAA63790.1			
	AAD11618.1			

AAA81348.1	U38965	Vicia faba	CAA46234.1	X65118	Nicotiana plumbaginifolia
AAK32119.1	AF308817	Hordeum vulgare	AAA33486.1	M74566	Zea mays
AAK32118.1	AF308816	Hordeum vulgare	AAA79045.1	U34742	Spinacia oleracea
AAA20600.1	U08984	Zea mays	CAA57551.1	X82030	Phaseolus vulgaris
SEQ ID NO. 1959			CAA11893.1	AJ224324	Hordeum vulgare
CAB43505.1	AJ239051	Cicer arietinum	CAA41023.1	X57955	Spinacia oleracea
BAA74465.1	AB022732	Glycyrrhiza echinata	AAA33039.1	L15080	Mesembryanthemum crystalli
BAA93634.1	AB025016	Lotus japonicus	CAC01238.1	AJ292768	Nicotiana plumbaginifolia
BAA22422.1	AB001379	Glycyrrhiza echinata	AAC49850.1	U90212	Nicotiana tabacum
CAA04117.1	AJ000478	Helianthus tuberosus	CAC01237.1	AJ292767	Nicotiana plumbaginifolia
CAB41490.1	AJ238439	Cicer arietinum	CAA81127.1	Z26042	Anemia phyllitidis
CAA04116.1	AJ000477	Helianthus tuberosus	AAF66823.1	AF190655	Nicotiana tabacum
CAA10067.1	AJ012581	Cicer arietinum	AB38974.1	U81318	Triticum aestivum
AAD56282.1	AF155332	Petunia x hybrida	CAA05729.1	AJ002894	Oryza sativa
AAG09208.1	AF175278	Pisum sativum	BAA05170.1	D26182	Nicotiana sylvestris
BAA12159.1	D83968	Glycine max	AAF66825.1	AF190657	Nicotiana tabacum
CAA65580.1	X96784	Nicotiana tabacum	AAK30205.1	AF349964	Daucus carota
AAC49188.2	U29333	Pisum sativum	AAF63202.1	AF240679	Cucumis sativus
AAG44132.1	AF218296	Pisum sativum	AB71417.1	U81287	Pisum sativum
CAA64635.1	X95342	Nicotiana tabacum	BAA22083.1	D28862	Nicotiana sylvestris
AAC39454.1	AF014802	Eschscholzia californica	CAB75429.1	AJ272011	Nicotiana plumbaginifolia
AB94590.1	AF022461	Glycine max	BAA12064.1	D83696	Nicotiana sylvestris
AAA32913.1	M32885	Persea americana	AAA75104.1	U32310	Triticum aestivum
BAA84072.1	AB028152	Torenia hybrida	BAA03742.1	D16205	Nicotiana sylvestris
BAA13076.1	D86351	Glycine max	CAA8558.1	Z48624	Hordeum vulgare
BAA84071.1	AB028151	Antirrhinum majus	AAK23220.1	AF310215	Sorghum bicolor
AAC32274.1	AF081575	Petunia x hybrida	SEQ ID NO. 1961		
CAA50155.1	X70824	Solanum melongena	AAK27547.1	AF269128	Brassica nigra
CAA70575.1	Y09423	Nepeta racemosa	AAK27695.1	AF016010	Brassica napus
BAA92894.1	AB006790	Petunia x hybrida	AAK27694.1	AF016009	Brassica napus
AB94587.1	AF022458	Glycine max	AAK27696.1	AF016011	Brassica napus
SEQ ID NO. 1960			AAK27546.1	AF269126	Brassica nigra
BAA01887.1	D11111	Nicotiana sylvestris	AAK24863.1	AF300700	Ipomoea nil
BAA01886.1	D11110	Nicotiana tabacum	AAK99310.1	AF052585	Malus x domestica
CAA11894.1	AJ224325	Hordeum vulgare	AAK99309.1	AF052584	Malus x domestica
BAA22411.1	D38485	Triticum aestivum	AAK35496.1	AF052690	Raphanus sativus
CAA06469.1	AJ005286	Hordeum vulgare	AAK22518.1	AF001136	Pinus radiata
CAA66479.1	X97905	Vicia faba	AAK14948.1	AF230669	Brassica napus
CAA46233.1	X65117	Nicotiana plumbaginifolia	AAK14950.1	AF230671	Brassica oleracea
			AAK14947.1	AF230668	Brassica napus

AAK14949.1	AF230670	Brassica rapa	AAC78393.1	U83670	Oryza sativa
SEQ ID NO. 1962			CAA31785.1	X13431	Triticum aestivum
AAA33975.1	M11395	Glycine max	CAA63570.1	X92983	Pseudotsuga menziesii
CRA41547.1	X58711	Medicago sativa	AAC78394.1	U83671	Oryza sativa
AAB03893.1	M11318	Glycine max	CAA63571.1	X92984	Pseudotsuga menziesii
AAA33672.1	M33899	Pisum sativum			
CAA25578.1	X01104	Glycine max	SEQ ID NO. 1965		
CAB55634.2	AJ237596	Helianthus annuus	AAD03415.1	AF069494	Sinapis alba
BAA33062.1	AB017273	Cuscuta japonica	AAA85440.1	U32624	Sorghum bicolor
AAA33974.1	M11317	Glycine max	AAF27289.1	AF140613	Manihot esculenta
AAD30454.1	AF123257	Lycopersicon esculentum	AAF27290.1	AF140614	Manihot esculenta
AAD30452.1	AF123255	Lycopersicon esculentum	AAF66543.1	AF140609	Triglochin maritimum
CAA39603.1	X56138	Lycopersicon esculentum	AAF66544.1	AF140610	Triglochin maritimum
AAD30453.1	AF123256	Lycopersicon esculentum	BAA92894.1	AB006790	Petunia x hybrida
CAA37847.1	X53851	Daucus carota	AAD56282.1	AF155332	Petunia x hybrida
AAA33671.1	M33900	Pisum sativum	CAA50155.1	X70824	Solanum melongena
AAF34133.1	AF161179	Malus x domestica	AAC32274.1	AF081575	Petunia x hybrida
CAA41546.1	X58710	Medicago sativa	AAA32913.1	M32885	Persea americana
AAB63310.1	U46544	Helianthus annuus	CAA64635.1	X95342	Nicotiana tabacum
AAB63311.1	U46545	Helianthus annuus	CAA65580.1	X96784	Nicotiana tabacum
CAB08441.1	Z95153	Helianthus annuus	AAB94587.1	AF022458	Glycine max
CAA42222.1	X59701	Helianthus annuus	AAB17562.1	U72654	Eustoma grandiflorum
AAC39360.1	U63631	Fragaria x ananassa	AAG09208.1	AF175278	Pisum sativum
AAA33910.1	M80939	Oryza sativa	AAD37433.1	AF150881	Lycopersicon esculentum x
CAA37848.1	X53852	Daucus carota	Lycopersicon peruvianum		
AAA33909.1	M80938	Oryza sativa	CAA04117.1	AJ000478	Helianthus tuberosus
CAA43210.1	X60820	Oryza sativa	CAA04116.1	AJ000477	Helianthus tuberosus
CAA37864.1	X53870	Chenopodium rubrum	CAB43505.1	AJ239051	Cicer arietinum
AAD49336.1	AF166277	Nicotiana tabacum	AAC49188.2	U29333	Pisum sativum
AAA61632.1	U08601	Papaver somniferum	AAG14963.1	AF214009	Brassica napus
AAB72109.1	AF022217	Brassica rapa	AAD38930.1	AF135485	Glycine max
CAA63902.1	X94192	Pennisetum glaucum	AAG14962.1	AF214008	Brassica napus
AAB39856.1	U81385	Oryza sativa	AAG44132.1	AF218296	Pisum sativum
CAA46641.1	X65725	Zea mays	AAB94588.1	AF022459	Glycine max
CAA08908.1	AJ009880	Castanea sativa	AAG14961.1	AF214007	Glycine max
CAA63903.1	X94193	Pennisetum glaucum	AAB94590.1	AF022461	Brassica napus
CAB36910.1	AJ000691	Quercus suber	BAA84071.1	AB028151	Antirrhinum majus
CAA63901.1	X94191	Pennisetum glaucum	CAA50442.1	X71130	Petunia x hybrida
AAC78392.1	U83669	Oryza sativa	SEQ ID NO. 1966		
BAA02160.1	D12635	Oryza sativa	AAG38521.1	AF283536	Citrus x paradisi



AAA97905.1	U51853	Glycine max	AAD32650.1	AF136941	Hordeum vulgare
CAA79954.1	Z21954	Vigna unguiculata	BAA74583.1	AB011266	Hordeum vulgare
AAB66355.1	U54702	Oryza sativa	BAB17826.1	AB046401	Oryza sativa
AAB24010.1	S49967	Oryza	BAB17823.1	AB023818	Oryza sativa
CAA60610.1	X87126	Zea mays	BAA74586.1	AB011269	Hordeum vulgare
BAA09666.1	D63342	Zea mays	BAA74588.2	AB021746	Oryza sativa
AAA32672.1	L16624	Ambrosia artemisiifolia	BAB17825.1	AB046401	Oryza sativa
BAA07327.1	D38130	Zea mays	BAA74587.1	AB019525	Hordeum vulgare
AAA97907.1	U51855	Glycine max	BAA74585.1	AB011268	Hordeum vulgare
BAB18766.1	AB038392	Triticum aestivum	BAA74580.1	AB010086	Hordeum vulgare
BAB18767.1	AB038393	Triticum aestivum	BAA74584.1	AB011267	Hordeum vulgare
CAA11899.1	AJ224331	Castanea sativa	SEQ ID NO. 1968		
AAB71505.1	U82220	Pyrus communis	AAD49420.1	AF172681	Canavalia lineata
CAA60634.1	X87168	Sorghum bicolor	CAA08855.1	AJ009825	Cicer arietinum
BAB18765.1	AB038391	Triticum aestivum	AAAG62490.1	I39931	Pisum sativum
BAB18768.1	AB038394	Triticum aestivum	BAA77206.1	AB026253	Pisum sativum
AAC37479.1	L41355	Brassica rapa	ABAB34918.2	S78994	Lens culinaris
BAA28867.1	AB014760	Cucumis sativus	CAA06833.1	AJ006052	Cicer arietinum
AAD33907.1	AF143677	Artemisia vulgaris	CAA45526.1	X64201	Lens culinaris
BAA89582.1	AP001073	Oryza sativa	AAD40979.1	AF089851	Glycine max
CAA72790.1	Y12068	Hordeum vulgare	AAD51007.1	AF171698	Euphorbia characias
AAA96316.1	U51119	Brassica rapa	SEQ ID NO. 1969		
AAK15090.1	AF240007	Sesamum indicum	AAC98091.1	AF067401	Oryza sativa
AAF23127.1	AF198389	Lycopersicon esculentum	AAG13663.1	AF263457	Zea mays
BAA19610.1	D64115	Glycine max	BAB39155.1	AB048713	Pisum sativum
BAA19608.1	D31700	Glycine max	AAC98090.1	AF067400	Zea mays
CAA89697.1	Z49697	Ricinus communis	BAA90816.1	AP001168	Oryza sativa
AAF72202.1	AF265551	Manihot esculenta	SEQ ID NO. 1977		
AAA97906.1	U51854	Glycine max	BAA78764.1	AB023482	Oryza sativa
CAA50437.1	X71124	Carica papaya	BAA94510.1	AB041504	Populus nigra
AAF23126.1	AF198388	Lycopersicon esculentum	AAF43496.1	AF131222	Lophopyrum elongatum
AAD13812.1	AF117334	Ipomoea batatas	AAK11674.1	AF339747	Lophopyrum elongatum
AAF64480.1	AF241536	Ipomoea batatas	BAA94509.1	AB041503	Populus nigra
AAK30004.1	AY028994	Dianthus caryophyllus	AAG16628.1	AY007545	Brassica napus
BAB18769.1	AB038395	Triticum aestivum	AAK21965.1	AY028699	Brassica napus
AAC32853.1	AF083253	Lycopersicon esculentum	AAG03090.1	AC073405	Oryza sativa
SEQ ID NO. 1967			CAB51834.1	00069	Oryza sativa
CAB42052.1	AJ242045	Lycopersicon esculentum	AAC61805.1	U28007	Lycopersicon esculentum
AAD32651.1	AF136942	Hordeum vulgare			
BAB17824.1	AB023819	Oryza sativa			

AAF91337.1	AAF249318	Glycine max	BAA13608.1	D88399	Oryza sativa
AAF91336.1	AAF249317	Glycine max	AAG60195.1	AC084763	Oryza sativa
AAF66615.1	AF142596	Nicotiana tabacum	BAA19573.1	AB002109	Oryza sativa
CAA97692.1	Z73295	Catharanthus roseus	AAB58348.1	U29095	Triticum aestivum
AAK11567.1	AF318491	Lycopersicon hirsutum	AAD00240.1	U73939	Nicotiana tabacum
AAB47421.1	U59316	Lycopersicon esculentum	AAA96325.1	M94726	Triticum aestivum
AAF76313.1	AF220603	Lycopersicon esculentum	CAA81443.1	Z26846	Mesembryanthemum crystalli
AAC27894.1	AF023164	Zea mays	AAB68962.1	L38855	Glycine max
AAK11566.1	AF318490	Lycopersicon hirsutum	AAF27340.1	AF186020	Vicia faba
AAC27895.1	AF023165	Zea mays	CAA89202.1	Z49233	Chlamydomonas eugametos
AAF76306.1	AF220602	Lycopersicon hirsutum	CAA06503.1	AJ005373	Craterostigma plantagineum
AAB47424.1	U59317	Lycopersicon pimpinellifolium	SEQ ID NO. 1979		
AAF76307.1	AF220602	Lycopersicon pimpinellifolium	AAF13739.1	AF108435	Papaver somniferum
AAC48914.1	U02271	Lycopersicon pimpinellifolium	AAF13736.1	AF108432	Papaver somniferum
AAB47423.1	U59315	Lycopersicon pimpinellifolium	AAF13738.1	AF108434	Papaver somniferum
AAG25966.1	AF302082	Lycopersicon pimpinellifolium	AAF13737.1	AF108433	Papaver somniferum
AAF34428.1	AF172282	Nicotiana tabacum	CAA39261.1	X55730	Glycine max
CAA73134.1	Y12531	Oryza sativa	CAA57783.1	X82367	Medicago sativa
AAG33377.1	AF290411	Brassica oleracea	AAB41556.1	U13925	Medicago sativa subsp. sativa
BAA92954.1	AP001551	Oryza sativa	CAA57784.1	X82368	Medicago sativa
SEQ ID NO. 1978			CAA57782.1	X82366	Medicago sativa
BAA34675.1	AB011670	Triticum aestivum	AAB41555.1	U13924	Medicago sativa subsp. sativa
BAA83688.1	AB011967	Oryza sativa	BAA12084.1	D83718	Glycyrrhiza echinata
AAF22219.1	AF141378	Zea mays	BAA13114.1	D86559	Glycyrrhiza glabra
BAA83689.1	AB011968	Oryza sativa	BAA13113.1	D86558	Glycyrrhiza glabra
CAA73068.1	Y12465	Sorghum bicolor	AAD22264.1	AF133841	Xerophyta viscosa
CAA73067.1	Y12464	Sorghum bicolor	AAA21751.1	L12042	Bromus inermis
AAB62693.1	AF004947	Oryza sativa	CAA40747.1	X57526	Hordeum vulgare
BAA96628.1	AP002482	Oryza sativa	CAA88322.1	Z48360	Hordeum vulgare
CAA71142.1	Y10036	Cucumis sativus	AAC49138.1	U21747	Avena fatua
AAD23582.1	AF128443	Glycine max	AAG15839.2	AF055910	Orobancha ramosa
CAA57898.1	X82548	Hordeum vulgare	AAB97617.1	U83687	Apium graveolens
BAA05649.1	D26602	Nicotiana tabacum	CAA88591.1	Z48672	Sesbania rostrata
AAC99329.1	AF062479	Oryza sativa	AAF13741.1	AF108437	Papaver somniferum
CAA65244.1	X95997	Solanum tuberosum	AAG31150.1	AF308853	Lotus corniculatus
AAB05457.1	U55768	Oryza sativa	BAA76417.1	AB024989	Cicer arietinum
CAA46554.1	X65604	Hordeum vulgare	AAG31151.1	AF308854	Lotus corniculatus
CAA07813.1	AJ007990	Hordeum vulgare	AAF13740.1	AF108436	Papaver somniferum
CAA46556.1	X65606	Hordeum vulgare	SEQ ID NO. 1980		
AAD00239.1	U73938	Nicotiana tabacum			

CAB94692.1	AJ242742	Ipomoea batatas	CAA71492.1	Y10466	Spinacia oleracea
AAD37430.1	AF149280	Phaseolus vulgaris	AAF63027.1	AF244924	Spinacia oleracea
CAA66037.1	X97351	Populus balsamifera subsp.	BAA77389.1	AB024439	Scutellaria baicalensis
trichocarpa			BAA77388.1	AB024438	Scutellaria baicalensis
BAA06335.1	D30653	Populus kitakamiensis	AA02554.1	L37790	Stylosanthes humilis
AAA34108.1	J02979	Nicotiana tabacum	AAF63026.1	AF244923	Spinacia oleracea
BAA01992.1	D11396	Nicotiana tabacum			
CAA66034.1	X97348	Populus balsamifera subsp.	SEQ ID NO. 1981		
trichocarpa			AAD10204.1	AF030260	Vicia sativa
AAB47602.1	L07554	Linum usitatissimum	AAG17470.1	AF123609	Triticum aestivum
BAA11853.1	D83225	Populus nigra	AAG33645.1	AF092917	Vicia sativa
CAA50597.1	X71593	Lycopersicon esculentum	AAK31592.1	AY029178	Brassica rapa subsp. pekin
CAB67121.1	Y19023	Lycopersicon esculentum	CAB41474.1	AJ238402	Catharanthus roseus
BAA11852.1	D83224	Populus nigra	AAB94588.1	AF022459	Glycine max
CAA66035.1	X97349	Populus balsamifera subsp.	AAB94586.1	AF022457	Glycine max
trichocarpa			AA32913.1	M32885	Persea americana
AAD37427.1	AF149277	Phaseolus vulgaris	CAA89260.1	Z49263	Pisum sativum
BAA01877.1	D11102	Populus kitakamiensis	BAA12159.1	D83968	Glycine max
CAA66036.1	X97350	Populus balsamifera subsp.	BA040323.1	AB037244	Asparagus officinalis
trichocarpa			CAA70576.1	Y09424	Nepeta racemosa
CAA62225.1	X90692	Medicago sativa	BA040324.1	AB037245	Asparagus officinalis
AAB97734.1	AF014502	Glycine max	AAD37433.1	AF150881	Lycopersicon esculentum x
CAA62226.1	X90693	Medicago sativa	Lycopersicon peruvianum		
CAA62227.1	X90694	Medicago sativa	CAB56503.1	AJ238612	Catharanthus roseus
BAA06334.1	D30652	Populus kitakamiensis	CAA70575.1	Y09423	Nepeta racemosa
BAA07241.1	D38051	Populus kitakamiensis	AAB94589.1	AF022460	Glycine max
AAB41810.1	L36156	Medicago sativa	AAD56282.1	AF155332	Petunia x hybrida
AAB41811.1	L36157	Medicago sativa	AAG14963.1	AF214009	Brassica napus
BAA14144.1	D90116	Armoracia rusticana	AAG14961.1	AF214007	Brassica napus
AAC98519.1	AF007211	Glycine max	AAG14962.1	AF214008	Brassica napus
BAA02840.1	D13683	Populus kitakamiensis	CAA50648.1	X71657	Solanum melongena
BAA14143.1	D90115	Armoracia rusticana	AAC48987.1	U09610	Berberis stolonifera
AAA33129.1	M91372	Cucumis sativus	CAA57423.1	X81829	Zea mays
BAA08499.1	D49551	Oryza sativa	CAA72208.1	Y11404	Zea mays
AAA34101.1	L02124	Nicotiana tabacum	BAA13076.1	D86351	Glycine max
CAA76680.1	Y17192	Cucurbita pepo	CAB41490.1	AJ238439	Cicer arietinum
CAA40796.1	X57564	Armoracia rusticana	BA040322.1	AB036772	Triticum aestivum
AAA33121.1	M32742	Cucumis sativus	CAA10067.1	AJ012581	Cicer arietinum
BAA82306.1	AB027752	Nicotiana tabacum	BA084916.1	AB032833	Cicer arietinum
AAD43561.1	AF155124	Gossypium hirsutum	CAA04117.1	AJ000478	Helianthus tuberosus
AAB06183.1	M37636	Arachis hypogaea	CAA04116.1	AJ000477	Helianthus tuberosus

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AAAF22256.1	AF161711	Pimpinella brachycarpa	CAA61946.1	X89828	Pisum sativum
BAA88222.1	AB028650	Nicotiana tabacum	CAA46649.1	X65742	Spinacia oleracea
CAA67575.1	X99134	Lycopersicon esculentum	BAA02729.1	D13512	Oryza sativa
CAA78387.1	Z13997	Petunia x hybrida	BAA08830.1	D50301	Oryza sativa
BAA81736.1	AB029165	Glycine max	BAA08845.1	D50307	Oryza sativa
CAA72217.1	Y11414	Oryza sativa	CAA37290.1	X53130	Oryza sativa
AAB41101.1	U72762	Nicotiana tabacum	CAA06308.1	AJ005041	Cicer arietinum
BAA88223.1	AB028651	Nicotiana tabacum	CAA61947.1	X89829	Pisum sativum
CAA72185.1	Y11350	Oryza sativa	CAC34412.1	Y18576	Flaveria trinervia
AAG13574.1	AC037425	Oryza sativa	BAA78593.1	AU066535	Chlamydomonas sp. HS-5
AAK19618.1	AF336285	Gossypium hirsutum	BAA76430.1	AB025002	Cicer arietinum
BAA23340.1	D88620	Oryza sativa			
CAA65525.1	X96749	Oryza sativa	SEQ ID NO. 1996		
CAA64615.1	X95297	Lycopersicon esculentum	CAA71238.1	Y10156	Brassica napus
AAK19615.1	AF336282	Gossypium hirsutum	CAA71237.1	Y10155	Brassica napus
CAA66952.1	X98308	Lycopersicon esculentum	CAB62165.1	AJ223307	Brassica napus
AAK19617.1	AF336284	Gossypium hirsutum	AAC49181.1	U39289	Brassica napus
AAA33500.1	M73028	Zea mays	AAC49182.1	U39319	Brassica napus
AAG36774.1	AF210616	Zea mays			
			SEQ ID NO. 1997		
SEQ ID NO. 1995			BAA12159.1	D83968	Glycine max
BAA77603.1	AB027002	Nicotiana paniculata	AAC32274.1	AF081575	Petunia x hybrida
BAA77604.1	AB027001	Nicotiana paniculata	AAA32913.1	M32885	Persea americana
CAA71408.1	Y10380	Solanum tuberosum	BAA13076.1	D86351	Glycine max
BAA02730.1	D13513	Oryza sativa	CAA64635.1	X95342	Nicotiana tabacum
AAA33642.1	M97476	Pisum sativum	CAA65580.1	X96784	Nicotiana tabacum
AAA33643.1	M97477	Pisum sativum	AAD56282.1	AF155332	Petunia x hybrida
AAAF74220.1	AF216582	Avena sativa	BAB12433.1	AB025030	Coptis japonica
CAA47293.1	X66814	Spinacia oleracea	AAG44132.1	AF218296	Pisum sativum
AAK19325.1	AF329674	Dunaliella salina	CAA50155.1	X70824	Solanum melongena
AAK19324.1	AF329673	Dunaliella salina	AAB17562.1	U72654	Eustoma grandiflorum
CAA49590.1	X69969	Chlamydomonas reinhardtii	AAF05621.1	AF191772	Papaver somniferum
AAC60574.1	S72951	Chloroplast Chlamydomonas	CAB56503.1	AJ238612	Catharanthus roseus
reinhartii			CAA70575.1	Y09423	Nepeta racemosa
CAA09669.1	AJ011516	Scherffelia dubia	BAA74466.1	AB022733	Glycyrrhiza echinata
AAB70542.1	AF017362	Oryza sativa	CAA50648.1	X71657	Solanum melongena
AAG21429.1	AF308587	Fragaria x ananassa	BAA22423.1	AB001380	Glycyrrhiza echinata
AAB61592.1	AF003124	Mesembryanthemum crystallinum	BAB40324.1	AB037245	Asparagus officinalis
CAB77243.2	AJ133146	Persea americana	AAB94588.1	AF022459	Glycine max
CAA31366.1	X12872	Zea mays	AAG14961.1	AF214007	Brassica napus
AAA33435.1	M16220	Zea mays	BAB40323.1	AB037244	Asparagus officinalis

AAC39452.1	AF014800	Eschscholzia californica	AAF23556.1	AF110458	Barbarea vulgaris
AAG14962.1	AF214008	Brassica napus	AAF23555.1	AF110457	Arabis turrita
BAA84072.1	AB028152	Torenia hybrida	AAF23538.1	AF110440	Arabidopsis griffithiana
AAC39453.1	AF014801	Eschscholzia californica	AAF23524.1	AF110426	Arabis alpina
AAD47832.1	AF166332	Nicotiana tabacum	AAF23543.1	AF110445	Arabis hirsuta
			AAF23525.1	AF110427	Arabis alpina
SEQ ID NO. 1999			AAF23527.1	AF110429	Arabis alpina
AAB01567.1	I47672	Picea glauca	AAF23535.1	AF110437	Arabis drummondii
			AAF23553.1	AF110455	Arabis procurrens
SEQ ID NO. 2000			AAF23544.1	AF110446	Arabis jacquinii
BAA22976.1	D63457	Arabis gemmifera	AAF23526.1	AF110428	Arabis alpina
BAA22973.1	D63454	Arabis gemmifera	AAF23528.1	AF110430	Cardamine amara
AAF23537.1	AF110439	Arabis glabra	AAF23552.1	AF110454	Arabis procurrens
BAA22978.1	D63459	Arabis gemmifera	AAF23542.1	AF110444	Arabis hirsuta
BAA22974.1	D63455	Arabis gemmifera	AAC79418.1	AF037560	Leavenworthia stylosa
AAF23540.1	AF110442	Arabidopsis halleri	BAA34682.1	AB015504	Arabidopsis griffithiana
AAF23551.1	AF110453	Arabidopsis lyrata subsp.	BAA34685.1	AB015507	Arabidopsis suecica
petraea			BAA34683.1	AB015505	Arabidopsis korshinskyi
lemhiensis			CAB72921.1	AJ251281	Arabidopsis lyrata subsp.
BAA22975.1	D63456	Halimolobos perplexa var.	petraea		
AAF23546.1	AF110448	Arabis gemmifera	CAB72920.1	AJ251280	Arabidopsis lyrata subsp.
AAF23548.1	AF110450	Arabis lyallii	petraea		
AAF23550.1	AF110452	Arabis parishii	CAB72919.1	AJ251279	Arabidopsis lyrata subsp.
		Arabidopsis lyrata subsp.	petraea		
BAA22972.1	D63453	Arabis gemmifera	CAB72918.1	AJ251278	Arabidopsis lyrata subsp.
BAA22971.1	D63452	Arabis gemmifera	petraea		
BAA22977.1	D63458	Arabis gemmifera	CAB72917.1	AJ251277	Arabidopsis lyrata subsp.
AAF23549.1	AF110451	Arabis pauciflora	petraea		
AAF23545.1	AF110447	Arabis lignifera			
AAF23536.1	AF110438	Arabis fendleri			
AAF23541.1	AF110443	Arabis hirsuta	SEQ ID NO. 2001		
AAF23531.1	AF110433	Arabis blepharophylla	AAG43286.1	AF140228	Oryza sativa
AAF23530.1	AF110432	Arabis blepharophylla	AAA33944.1	J03920	Glycine max
AAF23523.1	AF110425	Aubrieta deltoidea	CAA48299.1	X68217	Pisum sativum
AAF23529.1	AF110431	Arabis blepharophylla	CAA48300.1	X68218	Pisum sativum
AAF23547.1	AF110449	Arabidopsis lyrata subsp.	CAA48297.1	X68215	Pisum sativum
lyrata					
AAF23533.1	AF110435	Capsella rubella	SEQ ID NO. 2005		
AAF23534.1	AF110436	Arabis drummondii	BAA21923.1	AB006601	Petunia x hybrida
AAF23532.1	AF110434	Brassica oleracea	BAA21922.1	AB006600	Petunia x hybrida
			BAA21921.1	AB006599	Petunia x hybrida
			BAA19110.1	AB000451	Petunia x hybrida

BAA21926.1	AB006604	Petunia x hybrida	CAA63543.1	X92967	Nicotiana tabacum
BAA21925.1	AB006603	Petunia x hybrida	CAA63542.1	X92966	Nicotiana tabacum
BAA21924.1	AB006602	Petunia x hybrida	CAA44632.1	X62820	Glycine max
BAA21920.1	AB006598	Petunia x hybrida	CAA44188.1	X62303	Glycine max
BAA19111.1	AB000452	Petunia x hybrida	CAB46641.1	AJ243451	Lycopersicon esculentum
BAA96071.1	AB035133	Petunia x hybrida	AAC50013.1	U50064	Zea mays
BAA21927.1	AB006605	Petunia x hybrida	CAA81232.1	Z26331	Glycine max
BAA96070.1	AB035132	Petunia x hybrida	CAB46642.1	AJ243452	Lycopersicon esculentum
BAA21919.1	AB006597	Petunia x hybrida	CAA71243.1	Y10161	Chenopodium rubrum
AAK01713.1	AF332876	Oryza sativa	AAA20237.1	U10077	Zea mays
AAC06243.1	AF053077	Nicotiana tabacum	CAA99990.1	Z75660	Sesbania rostrata
BAA05079.1	D26086	Petunia x hybrida	BAA96590.1	AP002481	Oryza sativa
BAA05078.1	D26085	Petunia x hybrida	BAA86628.1	AB024986	Oryza sativa
BAA05076.1	D26083	Petunia x hybrida	AAC61888.1	U24193	Lupinus luteus
BAA05077.1	D26084	Petunia x hybrida	AAD31789.1	AF126106	Lupinus luteus
BAA21928.1	AB006606	Petunia x hybrida	AAC61889.1	U24194	Lupinus luteus
BAA19114.1	AB000455	Petunia x hybrida	AAD31790.1	AF126107	Lupinus luteus
AAD26942.1	AF119050	Datisca glomerata	AAC24245.1	U44857	Lupinus luteus
BAA19112.1	AB000453	Petunia x hybrida	AAD31791.1	AF126108	Lupinus luteus
AAB53260.1	U76554	Brassica rapa	BAA09467.1	D50871	Glycine max
AAB53261.1	U76555	Brassica rapa	BAA09465.1	D50869	Glycine max
BAA19926.1	AB000456	Petunia x hybrida	CAA53728.1	X76122	Antirrhinum majus
			BAA20411.1	D86386	Catharanthus roseus
			BAA09466.1	D50870	Glycine max
			AAC41681.1	L34207	Petroselinum crispum
			CAB81558.1	Z37978	Nicotiana tabacum
			BAA11560.1	D82349	Adiantum capillus-veneris
			CAB58998.1	AJ250315	Petunia x hybrida
SEQ ID NO. 2008			SEQ ID NO. 2009		
CAB61221.1	AJ250396	Antirrhinum majus	CAA75386.1	Y15113	Morinda citrifolia
CAA71244.1	Y10162	Chenopodium rubrum	CAA79855.1	Z21792	Lycopersicon esculentum
CAA09852.1	AJ011892	Nicotiana tabacum	CAA79856.1	Z21793	Lycopersicon esculentum
CAA09853.1	AJ011893	Nicotiana tabacum			
CAB60837.1	AJ002589	Lycopersicon esculentum	SEQ ID NO. 2010		
CAB61222.1	AJ250397	Antirrhinum majus	CAA71878.1	Y10984	Brassica juncea
CAB60838.1	AJ002590	Lycopersicon esculentum	AAB71231.1	AF017984	Lycopersicon esculentum
BAA33153.1	AB008188	Pisum sativum	AAF98157.1	AF258320	Phaseolus vulgaris
CAB60836.1	AJ002588	Lycopersicon esculentum			
CAB51788.1	AJ245415	Lycopersicon esculentum			
CAA61334.1	X88864	Medicago sativa			
CAB40540.1	AJ132929	Medicago sativa			
CAA09854.1	AJ011894	Nicotiana tabacum			
CAB61223.1	AJ250398	Antirrhinum majus			
CAB40541.1	AJ132930	Medicago sativa			
CAA09769.1	AJ011776	Chenopodium rubrum	SEQ ID NO. 2011		
CAA53729.1	X76123	Antirrhinum majus	AAB72109.1	AF022217	Brassica rapa

CAA37847.1	X53851	Daucus carota	SEQ ID NO. 2016		
AAD49336.1	AF166277	Nicotiana tabacum	BAA77204.1	AB026262	Cicer arietinum
BAA33062.1	AB017273	Cuscuta japonica	AAG43550.1	AF211532	Nicotiana tabacum
CAB36910.1	AJ000691	Quercus suber	BAA78746.1	AB023482	Oryza sativa
CAA08908.1	AJ009880	Castanea sativa			
AAA33975.1	M11395	Glycine max	SEQ ID NO. 2017		
CAA25578.1	X01104	Glycine max	AAA33811.1	L02830	Solanum tuberosum
AAB03893.1	M11318	Glycine max	AAG43547.1	AF211529	Nicotiana tabacum
CAA41547.1	X58711	Medicago sativa	CAB63264.1	AJ251808	Lotus japonicus
AAB63310.1	U46544	Helianthus annuus	AAA92677.1	U13736	Pisum sativum
CAB08441.1	Z95153	Helianthus annuus	AAF31152.1	AF078680	Olea europaea
CAA42222.1	X59701	Helianthus annuus	AAD10245.1	AF030033	Phaseolus vulgaris
CAA37848.1	X53852	Daucus carota	AAF31151.1	AF078679	Olea europaea
AAC39360.1	U63631	Fragaria x ananassa	AAA19571.1	U10150	Brassica napus
AAA33672.1	M33899	Pisum sativum	AAC49587.1	U49105	Triticum aestivum
AAB63311.1	U46545	Helianthus annuus	AAC49586.1	U49104	Triticum aestivum
AAA33974.1	M11317	Glycine max	AAC49585.1	U49103	Triticum aestivum
CAA63903.1	X94193	Pennisetum glaucum	AAC49584.1	U48693	Triticum aestivum
AAA61632.1	U08601	Papaver somniferum	AAC49580.1	U48689	Triticum aestivum
CAB55634.2	AJ237596	Helianthus annuus	AAC49579.1	U48688	Triticum aestivum
AAC78392.1	U83669	Oryza sativa	AAC49578.1	U48242	Triticum aestivum
AAA33910.1	M80939	Oryza sativa	AAA85157.1	U20297	Solanum tuberosum
BAA02160.1	D12635	Oryza sativa	AAA85156.1	U20296	Solanum tuberosum
CAA43210.1	X60820	Oryza sativa	AAA62351.1	U20295	Solanum tuberosum
CAA37864.1	X53870	Chenopodium rubrum	AAA85155.1	U20294	Solanum tuberosum
AAA33909.1	M80938	Oryza sativa	AAA33900.1	L18914	Oryza sativa
AAC78393.1	U83670	Oryza sativa	AAA92681.1	U13882	Pisum sativum
AAB39856.1	U81385	Oryza sativa	CAA78288.1	Z12828	Oryza sativa
AAD30454.1	AF123257	Lycopersicon esculentum			
AAA33671.1	M33900	Pisum sativum	SEQ ID NO. 2019		
AAC78394.1	U83671	Oryza sativa	CAA71003.1	Y09876	Nicotiana tabacum
CAA63901.1	X94191	Pennisetum glaucum	AAG43988.1	AF215823	Zea mays
CAA63902.1	X94192	Pennisetum glaucum	AAF73828.1	AF162665	Oryza sativa
AAD30452.1	AF123255	Lycopersicon esculentum	BAB19052.1	AB044537	Oryza sativa
CAA46641.1	X65725	Zea mays	BAA96793.1	AB030939	Oryza sativa
CAA39603.1	X56138	Lycopersicon esculentum	BAA96794.1	AB037421	Oryza sativa
CAA63570.1	X92983	Pseudotsuga menziesii	AAB41696.1	U69142	Spinacia oleracea
AAD30453.1	AF123256	Lycopersicon esculentum	AAA34025.1	M31480	Spinacia oleracea
CAA63571.1	X92984	Pseudotsuga menziesii	CAA41377.1	X58463	Beta vulgaris
CAA31785.1	X13431	Triticum aestivum	CAA41376.1	X58462	Beta vulgaris
CAA53286.1	X75616	Oryza sativa			



CAA49425.1	X69770	Atriplex hortensis	AAA33392.1	M12152	Lemna gibba
BBB18544.1	AB043540	Avicennia marina	CAA32109.1	X13909	Oryza sativa
AAAB58165.1	AF000132	Amaranthus hypochondriacus	AAF20948.1	AF207690	Daucus carota
AAAB70010.1	AF017150	Amaranthus hypochondriacus	AAA33636.1	M23532	Physcomitrella patens
BAA21098.1	AB001348	Oryza sativa	AAC25775.1	AF072931	Medicago sativa
BBB18543.1	AB043539	Avicennia marina	CRA50763.1	X71965	Pyrobotrys stellata
BBA05466.1	D26448	Hordeum vulgare	CAA44881.1	X63197	Hordeum vulgare
AAAC49268.1	U12196	Sorghum bicolor	CAA42818.1	X60275	Lycopersicon esculentum
AAAC49267.1	U12195	Sorghum bicolor	AAD27877.1	AF139465	Vigna radiata
AAAB33843.1	S77096	Brassica napus	CAA49149.1	X69215	Pisum sativum
CAA53076.1	X75327	Pisum sativum	CAA38025.1	X54090	Gossypium hirsutum
AAF08296.1	AF196292	Apium graveolens	AAF89205.1	AF279248	Vigna radiata
AAB47571.1	U87848	Nicotiana plumbaginifolia	CAA57408.1	X81809	Picea abies
AAAG43027.1	AF323586	Oryza sativa	CAA49209.1	X69434	Pyrobotrys stellata
CAA53075.1	X75326	Zea mays	BAA77273.1	AB026686	Physcomitrella patens
AAAC03055.1	AF045770	Oryza sativa	AAB61237.1	AF003128	Mesembryanthemum crystallinum
AAB47996.1	U87982	Sorghum bicolor	BAA00536.1	D00641	Oryza sativa
			CAA39883.1	X56538	Pisum sativum
			CAA43804.1	X61610	Brassica napus
			CAA57409.1	X81810	Picea abies
			AAA34142.1	M17559	Lycopersicon esculentum
			AAB19040.1	U51632	Pinus palustris
			CAA28639.1	X04966	Petunia x hybrida
			AAB18209.1	U73218	Triticum aestivum
			CAA84525.1	235160	Solanum tuberosum
			SEQ ID NO. 2028		
			AAC39481.1	AF047694	Vernicia fordii
			CAA89699.1	Z49699	Ricinus communis
			AAB92658.1	AF037988	Fritillaria agrestis
			AAB92657.1	AF037987	Fritillaria agrestis
			AAB92656.1	AF037986	Fritillaria agrestis
			AAB92655.1	AF037985	Fritillaria agrestis
			AAB92654.1	AF037984	Fritillaria agrestis
			AAB92419.1	AF037455	Fritillaria agrestis
			BAA20071.1	D86744	Oryza sativa
			CAA54397.1	X77150	Oryza sativa
			SEQ ID NO. 2032		
			CAA72271.1	Y11483	Brassica napus
			CAA72270.1	Y11482	Brassica napus

AAB72097.1	AF021257	Hordeum vulgare	BAA33062.1	AB017273	Cuscuta japonica
AAB72096.1	AF021256	Hordeum vulgare	AAA33671.1	M33900	Pisum sativum
SEQ ID NO. 2033			BAA02160.1	D12635	Oryza sativa
AAA34181.1	M98466	Lycopersicon esculentum	CAB08441.1	Z95153	Helianthus annuus
AAB339547.1	U63374	Lycopersicon esculentum	CAA42222.1	X59701	Helianthus annuus
AAB38497.1	U79772	Mercurialis annua	CAA08908.1	AJ009880	Castanea sativa
SEQ ID NO. 2034			CAA63901.1	X94191	Pennisetum glaucum
AAD15628.1	AF021807	Corylus avellana	AAC78394.1	U83671	Oryza sativa
AAF34133.1	AF161179	Malus x domestica	CAA46641.1	X65725	Zea mays
CAA41546.1	X58710	Medicago sativa	AAD09181.1	AF089842	Funaria hygrometrica
CAA41547.1	X58711	Medicago sativa	AAC01560.1	AF007762	Agrostis stolonifera var.
AAA33672.1	M33899	Pisum sativum	palustris		
AAB03893.1	M11318	Glycine max	SEQ ID NO. 2036		
AAB63310.1	U46544	Helianthus annuus	CAA05276.1	AJ002236	Lycopersicon pimpinellifolium
AAD30454.1	AF123257	Lycopersicon esculentum	AAC78591.1	AF053993	Lycopersicon esculentum
AAD30452.1	AF123255	Lycopersicon esculentum	AAC78596.1	AF053998	Lycopersicon esculentum
AAB63311.1	U46545	Helianthus annuus	CAA05279.1	AJ002237	Lycopersicon esculentum
AAD30453.1	AF123256	Lycopersicon esculentum	AAC78593.1	AF053995	Lycopersicon esculentum
CAA63570.1	X92983	Pseudotsuga menziesii	AAA65235.1	U15936	Lycopersicon pimpinellifolium
CAA63903.1	X94193	Pennisetum glaucum	CAA05274.1	AJ002236	Lycopersicon pimpinellifolium
CAA25578.1	X01104	Glycine max	AAC78592.1	AF053994	Lycopersicon esculentum
CAA39603.1	X56138	Lycopersicon esculentum	AAC78595.1	AF053997	Lycopersicon esculentum
CAA63571.1	X92984	Pseudotsuga menziesii	AAC78594.1	AF053996	Lycopersicon pimpinellifolium
AAA61632.1	U08601	Papaver somniferum	BAA96776.1	AF002521	Oryza sativa
CAB36910.1	AJ000691	Quercus suber	BAB08215.1	AP002539	Oryza sativa
CAB55634.2	AJ237596	Helianthus annuus	CAA05268.1	AJ002235	Lycopersicon hirsutum
AAA33910.1	M80939	Oryza sativa	AAD50430.1	AF166121	Hordeum vulgare
CAA37848.1	X53852	Daucus carota	CAB55409.1	AL117265	Oryza sativa
CAA37864.1	X53870	Chenopodium rubrum	AAC49123.1	U37133	Oryza sativa
AAA33975.1	M11395	Glycine max	AAC80225.1	U72723	Oryza longistaminata
AAB39856.1	U81385	Oryza sativa	SEQ ID NO. 2038		
AAA33909.1	M80938	Oryza sativa	AAD00708.1	U91857	Stylosanthes hamata
CAA43210.1	X60820	Oryza sativa	BAA97123.1	AB016265	Nicotiana sylvestris
CAA37847.1	X53851	Daucus carota	BAB03248.1	AB037183	Oryza sativa
CAA63902.1	X94192	Pennisetum glaucum	BAA76734.1	AB024575	Nicotiana tabacum
AAA33974.1	M11317	Glycine max	BAA97122.1	AB016264	Nicotiana sylvestris
AAC78392.1	U83669	Oryza sativa	CAB96900.1	AJ251250	Catharanthus roseus
AAC39360.1	U63631	Fragaria x ananassa	CAB96899.1	AJ251249	Catharanthus roseus
AAB72109.1	AF022217	Brassica rapa	AAC49740.1	U89256	Lycopersicon esculentum

AAC49741.1	U89257	Lycopersicon esculentum	AAA34173.1	M60166	Lycopersicon esculentum
BAA07321.1	D38123	Nicotiana tabacum	AAA34094.1	M80489	Nicotiana plumbaginifolia
AAC50047.1	U89255	Lycopersicon esculentum	AAA34052.1	M27888	Nicotiana plumbaginifolia
AAF05606.1	AF190770	Oryza sativa	CAC28221.1	AJ286746	Sesbania rostrata
AAC29516.1	U77655	Solanum tuberosum	CAA54045.1	X76535	Solanum tuberosum
BAA97124.1	AB016266	Nicotiana sylvestris	BAA06629.1	D31843	Oryza sativa
AAC62619.1	AF057373	Nicotiana tabacum	CAA64406.1	X94936	Phaseolus vulgaris
BAA87068.1	AB035270	Matricaria chamomilla	AAF98344.1	AF275745	Lycopersicon esculentum
AAB38748.1	U81157	Nicotiana tabacum	AAD55399.1	AF179442	Lycopersicon esculentum
AAD45623.1	AF084185	Brassica napus	CAA54046.1	X76536	Solanum tuberosum
SEQ ID NO. 2040			SEQ ID NO. 2046		
BAA90610.1	AP001129	Oryza sativa	AAAG9541.1	U18557	Raphanus sativus
CAA43454.1	X61146	Nicotiana tabacum	CAAG5983.1	X97318	Raphanus sativus
SEQ ID NO. 2043			AAAG9540.1	U18556	Raphanus sativus
CAA04670.1	AJ001310	Solanum tuberosum	AAB03224.1	U59459	Brassica napus
			CAA65984.1	X97319	Raphanus sativus
SEQ ID NO. 2045			SEQ ID NO. 2048		
BAA89544.1	AP001072	Oryza sativa	BAA85400.1	AP000615	Oryza sativa
BAA88191.1	AP000836	Oryza sativa	CAB06083.1	Z83834	Hordeum vulgare
BAA90510.2	AP001111	Oryza sativa	CAA74909.1	Y14573	Hordeum vulgare
AAD11618.1	AF050496	Lycopersicon esculentum	CAA06487.1	AJ005341	Linum usitatissimum
AAA34138.1	M96324	Lycopersicon esculentum			
AAD11617.1	AF050495	Lycopersicon esculentum	SEQ ID NO. 2049		
AAF73985.1	AF096871	Zea mays	AAC63113.1	AF000307	Brassica napus
AAD31896.1	AF145478	Mesembryanthemum crystallinum	AAC63112.1	AF000306	Brassica napus
AAG28436.1	AF195029	Glycine max	AAC63111.1	AF000305	Brassica napus
CAA63790.1	X93592	Dunaliella bioculata	AAA61638.1	U10275	Flaveria bidentis
AAG28435.1	AF195028	Glycine max	AAA33342.2	M84135	Flaveria chloraefolia
CAA68234.1	X99972	Brassica oleracea	AAA87399.1	U10277	Flaveria bidentis
AAB58910.1	U82966	Oryza sativa	AAA33343.1	M84136	Flaveria chloraefolia
CAB69824.1	AJ271439	Prunus persica			
AAB60276.1	U09989	Zea mays	SEQ ID NO. 2050		
BAA01058.1	D10207	Oryza sativa	AAD22970.1	AF124148	Glycine max
CAC29435.1	AJ310523	Vicia faba	CAB50901.1	AJ238651	Medicago truncatula
AAD20330.1	AF110268	Oryza sativa			
AAA34098.1	M80490	Nicotiana plumbaginifolia	SEQ ID NO. 2051		
AAB84203.1	AF029257	Kosteletzkya virginica	AAC04671.1	AF018174	Brassica napus
CAC28224.1	AJ286749	Sesbania rostrata	AAC49357.1	U35830	Pisum sativum
AAD46188.1	AF156691	Nicotiana plumbaginifolia	CAA45098.1	X63537	Pisum sativum

AAAC19392.1	AF069314	Mesembryanthemum crystallinum	AAE74565.1	AF215851	Spinacia oleracea
CAA33082.1	X14959	Spinacia oleracea	AAE74566.1	AF215852	Nicotiana tabacum
AAAC32111.1	AF051206	Picea mariana	AAE74568.1	AF215854	Zea mays
BAB20886.1	AB053294	Oryza sativa			
CAA77847.1	Z11803	Nicotiana tabacum	SEQ ID NO. 2066		
CAA05081.1	AJ001903	Triticum turgidum subsp. durum	CAA59049.1	X84308	Hordeum vulgare
AAAB53695.1	U59380	Brassica napus			
BAA13524.1	D87984	Fagopyrum esculentum	SEQ ID NO. 2067		
CAA94534.1	Z70677	Ricinus communis	AAE75824.1	AF101788	Pinus taeda
CRA56850.1	X80887	Chlamydomonas reinhardtii	AAC32448.1	U76296	Spinacia oleracea
CAA55399.1	X78822	Chlamydomonas reinhardtii	AAE66243.1	AF243181	Lycopersicon esculentum
AAAB51522.1	U92541	Oryza sativa	BAA90481.1	AB035146	Ipomoea nil
BAA05546.1	D26547	Oryza sativa			
AAE88067.1	AF286593	Triticum aestivum	SEQ ID NO. 2068		
CAA41415.1	X58527	Nicotiana tabacum	AAC34983.1	AF039598	Prunus persica
BAA04864.1	D21836	Oryza sativa	CAA38025.1	X54090	Gossypium hirsutum
BAA25681.1	AB010434	Brassica rapa	AAD48017.1	AF165529	Rumex palustris
AAE35777.1	AF273844	Brassica oleracea var.	CAA41188.1	X58230	Nicotiana tabacum
			CAA74179.1	Y13865	Beta vulgaris
alboglabra			CAA28639.1	X04966	Petunia x hybrida
AAAB53694.1	U59379	Brassica napus	CAA52750.1	X74732	Amaranthus hypochondriacus
AAD49232.1	AF159387	Lolium perenne	CAA84525.1	Z35160	Solanum tuberosum
AAD49230.1	AF159385	Hordeum bulbosum	CAA43907.1	X61915	Pinus thunbergii
AAD49231.1	AF159386	Secale cereale	AAA34141.1	M17558	Lycopersicon esculentum
AAD49233.1	AF159388	Phalaris coerulescens	AAA33392.1	M12152	Lemna gibba
AAD49234.1	AF159389	Phalaris coerulescens	AAF89205.1	AF279248	Vigna radiata
AAD56954.1	AF186240	Secale cereale	CAA40365.1	X57082	Pisum sativum
BAB39913.1	AP002912	Oryza sativa	AAC15992.1	AF061577	Oryza sativa
CAA55398.1	X78821	Chlamydomonas reinhardtii	BAA00537.1	D00642	Oryza sativa
CAA56851.1	X80888	Chlamydomonas reinhardtii	AAB19040.1	U51632	Pinus palustris
CAA44209.1	X62335	Chlamydomonas reinhardtii	CAA31773.1	X13407	Pinus thunbergii
CAA06735.1	AJ005840	Triticum aestivum	AAA34142.1	M17559	Lycopersicon esculentum
AAD45358.1	AF160870	Brassica napus	CAA89823.1	Z49749	Pseudotsuga menziesii
AAB52409.1	U76831	Brassica napus	AAB82142.1	AF022739	Oryza sativa
CAA35826.1	X51462	Spinacia oleracea	AAA60965.1	L23107	Ginkgo biloba
CAA53900.1	X76269	Pisum sativum	CAA48641.1	X68682	Zea mays
AAC49358.1	U35831	Pisum sativum	AAA80591.1	U21111	Solanum tuberosum
CAA35827.1	X51463	Spinacia oleracea	AAA34147.1	M14443	Lycopersicon esculentum
CAA06736.1	AJ005841	Oryza sativa	AAA80593.1	U21113	Solanum tuberosum
			AAA80589.1	U20983	Solanum tuberosum
			BAA25391.1	AB012637	Nicotiana sylvestris
		Solanum tuberosum			
SEQ ID NO. 2054					
AAE74567.1	AF215853				

BAA25396.1	AB012641	Nicotiana sylvestris	CAA43907.1	X61915	Pinus thunbergii
BAA25394.1	AB012639	Nicotiana sylvestris	AAD48017.1	AF165529	Rumex palustris
AAA80594.1	U21114	Solanum tuberosum	AAC15992.1	AF061577	Oryza sativa
BAA25389.1	AB012637	Nicotiana sylvestris	CAA39883.1	X56538	Pisum sativum
BAA25392.1	AB012638	Nicotiana sylvestris	AAA50172.1	U01964	Glycine max
AAA68425.1	M34396	Polystichum munitum	CAA32526.1	X14341	Plastid Spinacia oleracea
CAA57409.1	X81810	Picea abies	AAA34142.1	M17559	Lycopersicon esculentum
AAA50172.1	U01964	Glycine max	CAA10284.1	AJ131044	Cicer arietinum
AAA80592.1	U21112	Solanum tuberosum	AAC25775.1	AF072931	Medicago sativa
BAA25395.1	AB012640	Nicotiana sylvestris	AAF26741.1	AF220527	Euphorbia esula
BAA25388.1	AB012636	Nicotiana sylvestris	AAA33396.1	M29334	Lemna gibba
CAA41187.1	X58229	Nicotiana tabacum	BAA25393.1	AB012638	Nicotiana sylvestris
BAA25390.1	AB012637	Nicotiana sylvestris	AAB61238.1	AF003129	Mesembryanthemum crystallinum
CAA32900.1	X14794	Zea mays	BAA25395.1	AB012640	Nicotiana sylvestris
AAA34148.1	M14444	Lycopersicon esculentum	AAA80589.1	U20983	Solanum tuberosum
CAA57408.1	X81809	Picea abies	AAA33124.1	M16057	Cucumis sativus
BAA25393.1	AB012638	Nicotiana sylvestris	CAA31419.1	X12981	Glycine max
BAA77273.1	AB026686	Physcomitrella patens	AAA80591.1	U21111	Solanum tuberosum
CAA47950.1	X67714	Pinus contorta	AAA80593.1	U21113	Solanum tuberosum
SEQ ID NO. 2069			AAB61237.1	AF003128	Mesembryanthemum crystallinum
AAD27877.1	AF139465	Vigna radiata	CAA41187.1	X58229	Nicotiana tabacum
CAA49149.1	X69215	Pisum sativum	BAA24493.1	AB006081	Fagus crenata
AAF20948.1	AF207690	Daucus carota	AAA34148.1	M14444	Lycopersicon esculentum
CAA43803.1	X61609	Brassica napus	AAA60965.1	I23107	Ginkgo biloba
CAA43804.1	X61610	Brassica napus	AAA34147.1	M14443	Lycopersicon esculentum
CAA43802.1	X61608	Brassica napus	SEQ ID NO. 2070		
AAA33392.1	M12152	Lemna gibba	AAB86942.1	AF031241	Glycine max
CAA52750.1	X74732	Amaranthus hypochondriacus	AAK21920.1	AF338252	Glycine max
CAA41188.1	X58230	Nicotiana tabacum	CAA42660.1	X60058	Nicotiana tabacum
CAA28639.1	X04966	Petunia x hybrida	CAA42659.1	X60057	Nicotiana tabacum
AAC34983.1	AF039598	Prunus persica	AAC49900.1	U58209	Zea mays
CAA74179.1	Y13865	Beta vulgaris	AAC49899.1	U58208	Zea mays
AAA34141.1	M17558	Lycopersicon esculentum	AAB63469.1	AF006825	Oryza sativa
CAA89823.1	Z49749	Pseudotsuga menziesii	CAA89834.2	Z49764	Pseudotsuga menziesii
CAA38025.1	X54090	Gossypium hirsutum	AAA92743.1	M59449	Zea mays
AAB19040.1	U51632	Pinus palustris	SEQ ID NO. 2071		
CAA84525.1	Z35160	Solanum tuberosum	CAA32764.1	X14609	Cucumis sativus
CAA32900.1	X14794	Zea mays	CAA41434.1	X58542	Cucumis sativus
CAA40365.1	X57082	Pisum sativum	BAA08410.1	D49432	Cucurbita sp.
BAA00537.1	D00642	Oryza sativa			

BAA08411.1	D49433	Cucurbita sp.	BAA89008.1	AB027454	Petunia x hybrida
AAB00105.1	U01067	Cucurbita pepo	CAA54609.1	X77459	Manihot esculenta
SEQ ID NO. 2072			BAA36421.1	AB013596	Perilla frutescens
BAA09852.1	D63781	Glycine max	AAD55985.1	AF165148	Petunia x hybrida
CAA55293.1	X78547	Glycine max	CAA54613.1	X77463	Manihot esculenta
CAA55294.1	X78548	Glycine max	BAA12737.1	D85186	Gentiana triflora
AAA81890.1	U02495	Solanum tuberosum	CAA54558.1	X77369	Solanum melongena
AAA81892.1	U02497	Solanum tuberosum	BAA36411.1	AB012115	Vigna mungo
AAA81889.1	U02494	Solanum tuberosum	CAA81057.1	Z25802	Petunia x hybrida
AAA81891.1	U02496	Solanum tuberosum	AAD21086.1	AF127218	Forsythia x intermedia
AAA81893.1	U02498	Solanum tuberosum	CAA50376.1	X71059	Petunia x hybrida
BAA85201.1	AP000570	Oryza sativa	CAA50377.1	X71060	Petunia x hybrida
BAA84626.1	AP000492	Oryza sativa	SEQ ID NO. 2077		
BAA85202.1	AP000570	Oryza sativa	AAK28303.1	AF346431	Nicotiana tabacum
BAA84627.1	AP000492	Oryza sativa	AAB36653.1	U32644	Nicotiana tabacum
AAB02006.1	U57350	Nicotiana tabacum	AAB36652.1	U32643	Nicotiana tabacum
SEQ ID NO. 2076			AAK28304.1	AF346432	Nicotiana tabacum
AAB36652.1	U32643	Nicotiana tabacum	CAA59450.1	X85138	Lycopersicon esculentum
AAK28304.1	AF346432	Nicotiana tabacum	CAB56231.1	Y18871	Dortheanthus bellidifformis
AAK28303.1	AF346431	Nicotiana tabacum	BAA83484.1	AB031274	Scutellaria baicalensis
AAB36653.1	U32644	Nicotiana tabacum	AAB48444.1	U82367	Solanum tuberosum
CAB56231.1	Y18871	Dortheanthus bellidifformis	BAA36410.1	AB012114	Vigna mungo
CAA59450.1	X85138	Lycopersicon esculentum	CAA54610.1	X77460	Manihot esculenta
BAA83484.1	AB031274	Scutellaria baicalensis	AAD51778.1	AF116858	Phaseolus vulgaris
AAB48444.1	U82367	Solanum tuberosum	AAD04166.1	AF101972	Phaseolus lunatus
BAA36410.1	AB012114	Vigna mungo	BAA89009.1	AB027455	Petunia x hybrida
CAA54610.1	X77460	Manihot esculenta	AAB62270.1	AF006081	Solanum berthaultii
AAD04166.1	AF101972	Phaseolus lunatus	AAF61647.1	AF190634	Nicotiana tabacum
BAA89009.1	AB027455	Petunia x hybrida	CAA54612.1	X77462	Manihot esculenta
AAD51778.1	AF116858	Phaseolus vulgaris	BAA36412.1	AB012116	Vigna mungo
AAF61647.1	AF190634	Nicotiana tabacum	AAF98390.1	AF287143	Brassica napus
BAA93039.1	AB033758	Citrus unshiu	BAA36423.1	AB013598	Verbena x hybrida
BAA36412.1	AB012116	Vigna mungo	AAF17077.1	AF199453	Sorghum bicolor
BAA36423.1	AB013598	Verbena x hybrida	BAA93039.1	AB033758	Citrus unshiu
AAF17077.1	AF199453	Sorghum bicolor	BAA89008.1	AB027454	Petunia x hybrida
CAA54611.1	X77461	Manihot esculenta	CAA54558.1	X77369	Solanum melongena
CAA54612.1	X77462	Manihot esculenta	CAA54611.1	X77461	Manihot esculenta
AAF98390.1	AF287143	Brassica napus	CAA54609.1	X77459	Manihot esculenta
BAA19155.1	AB000623	Nicotiana tabacum	BAA12737.1	D85186	Gentiana triflora
			AAD21086.1	AF127218	Forsythia x intermedia

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BAA36411.1	AB012115	Vigna mungo	CAA71489.1	Y10463	Spinacia oleracea
BAA19155.1	AB000623	Nicotiana tabacum	BAA01950.1	D11337	Vigna angularis
AAD55985.1	AF165148	Petunia x hybrida	BAA11853.1	D83225	Populus nigra
CAA54613.1	X77463	Manihot esculenta	CAA71491.1	Y10465	Spinacia oleracea
BAA36421.1	AB013596	Perilla frutescens	AAE63024.1	AF244921	Spinacia oleracea
BAA19659.1	AB002818	Perilla frutescens	AAD37429.2	AF149279	Phaseolus vulgaris
AAB81683.1	AF000372	Vitis vinifera	BAA92500.1	AP001383	Oryza sativa
BAB41025.1	AB047098	Vitis vinifera	BAA92967.1	AP001551	Oryza sativa
BAB41023.1	AB047096	Vitis vinifera	AAE63027.1	AF244924	Spinacia oleracea
SEQ ID NO. 2078			CAC21391.1	AJ401274	Zea mays
AAA53140.1	U08469	Glycine max	AAB06183.1	M37636	Arachis hypogaea
AAA19157.1	U07745	Lycopersicon esculentum	CAB92952.1	AJ251254	Pinus pinaster
AAF80468.1	AF163149	Glycine max	AAA34050.1	M74103	Nicotiana sylvestris
AAC02267.1	AF007100	Glycine max	BAA96643.1	AP002482	Oryza sativa
AAC23573.1	AF068249	Glycine max	CAC21393.1	AJ401276	Zea mays
AAF80469.1	AF163150	Glycine max	CAA71494.1	Y10468	Spinacia oleracea
AAC41659.1	L38260	Nicotiana tabacum	AAD43561.1	AF155124	Gossypium hirsutum
AA85742.1	U34393	Glycine max	CAA76374.2	Y16776	Spinacia oleracea
AAC39330.1	AF029895	Triticum aestivum	AAB02926.1	U59284	Linum usitatissimum
AA80214.1	U19183	Zea mays	AAA98491.1	L36981	Petroselinum crispum
CAC19876.1	AJ131866	Brassica napus	AAB48184.1	L24120	Linum usitatissimum
AA842144.1	L25042	Medicago sativa	BAA94962.1	AB042103	Asparagus officinalis
CAC19875.1	AJ131865	Brassica napus	AAF63025.1	AF244922	Spinacia oleracea
AAC49275.1	U39321	Triticum aestivum	AAD11482.1	U51192	Glycine max
CAA54683.1	X77576	Brassica napus	CAA66036.1	X97350	Populus balsamifera subsp.
AAA19970.1	U10187	Triticum aestivum	trichocarpa		
AAC39332.1	AF029897	Triticum aestivum	BAA14144.1	D90116	Armoracia rusticana
AAC39331.1	AF029896	Triticum aestivum	AAC05277.1	AF049881	Linum usitatissimum
AAA81578.1	L48995	Glycine max	AAD11481.1	U51191	Glycine max
CAA71346.1	Y10301	Brassica napus	BAA07663.1	D42064	Nicotiana tabacum
AA53141.1	U08846	Glycine max	CAA71490.1	Y10464	Spinacia oleracea
CAC16140.1	X77374	Brassica napus	BAA77387.1	AB024437	Scutellaria baicalensis
CAA71347.1	Y10302	Brassica napus	CAA80502.1	Z22920	Spirodela polyrrhiza
AAC41658.1	L39267	Ricinus communis	BAA82306.1	AB027752	Nicotiana tabacum
SEQ ID NO. 2079			AAF63026.1	AF244923	Spinacia oleracea
AAB67737.1	L77080	Stylosanthes humilis	AAD37376.1	AF145350	Glycine max
AAA32676.1	M37637	Arachis hypogaea	AAA65636.1	L13653	Lycopersicon esculentum
CAA64413.1	X94943	Lycopersicon esculentum	CAA40796.1	X57564	Armoracia rusticana
CAA59487.1	X85230	Triticum aestivum	BAA07664.1	D42065	Nicotiana tabacum
			AAB02554.1	L37790	Stylosanthes humilis

SEQ ID NO. 2080	SEQ ID NO. 2081	SEQ ID NO. 2082	SEQ ID NO. 2083	SEQ ID NO. 2084
AAAC15870.1	AF002016	CAB64356.1	AJ251511	tremuloides
AAAF14635.1	AF020297	AAC60576.1	S71335	AAC60576.1
AAAB67883.1	U66299	CAAF56163.1	X79768	CAAF56163.1
AAAC32108.1	AF051203	AAC35354.1	AF083880	AAC35354.1
CAB55555.1	AF010946	BAB21500.1	AB055060	BAB21500.1
AAJ010945	AF010945	BAA23803.1	AB009395	BAA23803.1
AAJ010946	AF010946	BAA86963.1	AB007452	BAA86963.1
AAJ010947	AF010947	BAA28773.1	AB004864	BAA28773.1
AAJ010948	AF010948	BAA28772.1	AB004813	BAA28772.1
AAJ010949	AF010949	CAA78823.1	Z15117	CAA78823.1
AAJ010950	AF010950	AAA34048.1	M60330	AAA34048.1
AAJ010951	AF010951	AAJ51707.1	AF174004	AAJ51707.1
AAJ010952	AF010952	CAA55892.1	X79329	CAA55892.1
AAJ010953	AF010953	CAB72441.1	AJ271889	CAB72441.1
AAJ010954	AF010954	tremuloides		
AAJ010955	U87906	AAB97285.1		
AAJ010956	AB004813	BAA28771.1		
AAJ010957	AB004865	BAA28774.1		
AAJ010958	U87907	AAB97286.1		
AAJ010959	AF040566	AAB97839.1		
AAJ010960	AF314255	AAG33634.1		
AAJ010961	AF285187	AAG02081.1		
AAJ010962	AF314254	AAG33633.1		
AAJ010963	AF047832	AAC05743.2		



AAB53100.1	U68218	Brassica napus	BAA77282.1	AB026731	Oryza sativa
AAB94542.1	AF016305	Zea mays	AAC26053.1	AF074940	Glycine max
BAA36274.1	AB015204	Oryza sativa	AAB70837.1	AF019907	Vitis vinifera
AAF18998.1	AF212154	Allium cepa	BAA07108.1	D37870	Spinacia oleracea
AAB01234.1	U57088	Chlamydomonas reinhardtii	AAB30526.1	S70187	Glycine max
			AAD53185.1	AF181096	Vigna unguiculata
			AAD28177.1	AF109694	Brassica juncea
SEQ ID NO. 2085			BAA36283.1	D85751	Oryza sativa
AAG01147.1	AF283816	Pinus taeda	BAA37092.1	AB009592	Oryza sativa
CAA95999.1	Z71395	Nicotiana plumbaginifolia	AAK27157.1	AF349449	Brassica juncea
AAB71420.1	U74631	Ricinus communis	CAA53925.1	X76293	Nicotiana tabacum
AAB71419.1	U74630	Ricinus communis	CAA54043.1	X76533	Nicotiana tabacum
AAD32207.1	AF134733	Prunus armeniaca	CAA53993.1	X76455	Nicotiana tabacum
CAA05161.1	AJ002057	Beta vulgaris	AAE26175.1	AF105199	Glycine max
AAA32948.1	I27348	Hordeum vulgare	CAB66332.1	AJ279690	Betula pendula
AAA32949.1	I27349	Hordeum vulgare	CAC13956.1	AJ400816	Mesembryanthemum crystallinum
AAE01470.1	AF190454	Zea mays	CAA06835.1	AJ006055	Zea mays
CAA86728.1	Z46772	Zea mays	CAA42921.1	X60373	Pisum sativum
CAA61939.1	X89813	Zea mays	CAA62482.1	X90996	Pisum sativum
AAD17490.1	AF052040	Berberis stolonifera	AAA33962.1	L11632	Glycine max
AAB70919.1	AF019376	Brassica napus	CAA66924.1	X98274	Pisum sativum
CAA54975.1	X78057	Zea mays			
CAB54526.1	AJ000765	Chlamydomonas reinhardtii	SEQ ID NO. 2088		
BAA85118.1	AB018243	Solanum melongena	AAC72193.1	AF069909	Zea mays
AAK15502.1	AF325720	Pennisetum ciliare	AAC72192.1	AF069908	Zea mays
CAA57914.1	X82578	Parthenium argentatum	AAC72194.1	AF069910	Zea mays
BAA77025.1	AB026251	Lithospermum erythrorhizon	AAB01223.1	U56697	Pisum sativum
			AAC32149.1	AF051249	Picea mariana
SEQ ID NO. 2086			AAF43837.1	AF166114	Chloroplast Mesostigma viride
AAK07610.1	AF319771	Brassica napus	AAD22077.1	AF124755	Pinus banksiana
AAF68384.1	AF236368	Zea mays	CAA75778.1	Y15782	Capsicum annuum
AAF68387.1	AF236371	Zea mays	AAB88295.1	AF024512	Oryza sativa
AAE49690.1	U69154	Nicotiana tabacum			
AAF68385.1	AF236369	Zea mays	SEQ ID NO. 2089		
AAF68386.1	AF236370	Zea mays	CAC17753.1	AJ294543	Dendrobium 'Sonia'
			CAC17752.1	AJ294542	Dendrobium 'Sonia'
SEQ ID NO. 2087			CAA77151.1	Y18377	Zea mays
AAD28178.1	AF109695	Brassica juncea	AAC27500.1	AF044603	Zea mays
BAA05408.1	D26392	Cucumis sativus	BAB03420.1	AP002816	Oryza sativa
AAC41654.1	I41345	Lycopersicon esculentum			
AAA60979.1	U06461	Pisum sativum			
BAA77214.1	D85764	Oryza sativa			

CAA82993.1	Z30332	Spinacia oleracea	AAG34822.1	AF244679	Zea mays
CAA82994.1	Z30333	Mesembryanthemum crystallinum	CAA05355.1	AJ002381	Oryza sativa
SEQ ID NO. 2094			SEQ ID NO. 2098		
AAC49181.1	U39289	Brassica napus	BAA84780.1	AB018444	Oryza sativa
AAC49182.1	U39319	Brassica napus	BAA84779.1	AB018443	Oryza sativa
SEQ ID NO. 2095			SEQ ID NO. 2099		
CAA55039.1	X78203	Hyoscyamus muticus	CAA47926.1	X67696	Cucumis sativus
AAB55163.1	AF002692	Solanum commersonii	BAA11117.1	D70895	Cucurbita sp.
BAA01394.1	D10524	Nicotiana tabacum	CAA63598.1	X93015	Brassica napus
CAA96431.1	Z71749	Nicotiana plumbaginifolia	CAA53078.1	X75329	Mangifera indica
AAA33931.1	M84969	Silene vulgaris	CAA55006.1	X78116	Raphanus sativus
AAA33930.1	M84968	Silene vulgaris	AAD44539.1	AF113522	Zea mays
AAF61392.1	AF133894	Persea americana			
CAB38119.1	AJ010296	Zea mays	SEQ ID NO. 2101		
CAB38118.1	AJ010295	Zea mays	AAF67753.1	AF255651	Brassica rapa subsp. pekinensis
AAG34811.1	AF243376	Glycine max	AAC49980.2	AF008441	Brassica rapa
ARG34812.1	AF243377	Glycine max	CAA66924.1	X98274	Pisum sativum
ARG34814.1	AF243379	Glycine max	BAA36283.1	D85751	Oryza sativa
CAA09190.1	AJ010451	Alopecurus myosuroides	BAA37092.1	AB009592	Oryza sativa
CAA09193.1	AJ010454	Alopecurus myosuroides	BAA07108.1	D37870	Spinacia oleracea
CAA09191.1	AJ010452	Alopecurus myosuroides	CAC13956.1	AJ400816	Mesembryanthemum crystallinum
CAA09192.1	AJ010453	Alopecurus myosuroides	CAB66332.1	AJ279690	Betula pendula
AAD56395.1	AF184059	Triticum aestivum	CAA53925.1	X76293	Nicotiana tabacum
CAA39487.1	X56012	Triticum aestivum	CAA42921.1	X60373	Pisum sativum
AAA33470.1	Y07721	Petunia x hybrida	AAK27157.1	AF349449	Brassica juncea
AAA33469.1	M16901	Zea mays	AAD28177.1	AF109694	Brassica juncea
AAA20585.1	M16902	Zea mays	CAA62482.1	X90996	Pisum sativum
CAA56047.1	U12679	Zea mays	AAF26175.1	AF105199	Glycine max
CAB66333.1	X79515	Zea mays	AAB70837.1	AF019907	Vitis vinifera
AAC64007.1	AJ279691	Betula pendula	AAA33962.1	L11632	Glycine max
CAA39480.1	AF062403	Oryza sativa	CAA54043.1	X76533	Nicotiana tabacum
AAG34823.1	X56004	Triticum aestivum	CAA06835.1	AJ006055	Zea mays
AAG34818.1	AF244680	Zea mays	CAA53993.1	X76455	Nicotiana tabacum
AAG34820.1	AF244675	Zea mays	AAB30526.1	S70187	Glycine max
AAG34817.1	AF244677	Zea mays	AAC26053.1	AF074940	Glycine max
AAG34821.1	AF244674	Zea mays	AAD53185.1	AF181096	Vigna unguiculata
CAA05354.1	AF244678	Zea mays	AAA60979.1	U06461	Pisum sativum
AAG34816.1	AF244673	Oryza sativa	BAA05408.1	D26392	Cucumis sativus
		Zea mays	AAC41654.1	L41345	Lycopersicon esculentum

AAD28178.1	AF109695	Brassica juncea	AAF78516.1	AF195217	Pyrus pyrifolia
BAA77214.1	D85764	Oryza sativa	SEQ ID NO. 2111		
SEQ ID NO. 2104			BAA78575.1	AB028132	Oryza sativa
AAG22606.1	AF258809	Lycopersicon esculentum	BAA78572.1	AB028129	Oryza sativa
AAB41742.1	U82559	Lycopersicon esculentum	BAA78573.1	AB028130	Oryza sativa
AAG22605.1	AF258808	Lycopersicon esculentum	CAA66601.1	X97942	Nicotiana tabacum
AAG22607.1	AF258810	Lycopersicon esculentum	CAB89831.1	AJ242853	Solanum tuberosum
BAA23226.1	D88451	Zea mays	CAA08755.1	AJ009594	Nicotiana tabacum
AAG22608.1	AF259793	Lycopersicon esculentum	CAA66606.1	X97947	Nicotiana tabacum
AAB41741.1	U82558	Lycopersicon esculentum	CAA66604.1	X97945	Nicotiana tabacum
SEQ ID NO. 2106			CAA66605.1	X97946	Nicotiana tabacum
AAA74957.1	I31936	Brassica rapa	BAA78574.1	AB028131	Oryza sativa
CAA99757.1	Z75521	Lycopersicon esculentum	BAA78576.1	AB028133	Oryza sativa
AAB46718.1	U86018	Oryza sativa	SEQ ID NO. 2113		
AAF78511.1	AF195209	Pyrus pyrifolia	CAA98179.1	Z73951	Lotus japonicus
SEQ ID NO. 2107			BAA02904.1	D13758	Oryza sativa
CAA59409.1	X85038	Spinacia oleracea	SEQ ID NO. 2114		
AAD50464.1	AF170026	Chlamydomonas reinhardtii	BAA89009.1	AB027455	Petunia x hybrida
SEQ ID NO. 2108			BAA36423.1	AB013598	Verbena x hybrida
CAA45701.1	X64349	Nicotiana tabacum	BAA36421.1	AB013596	Perilla frutescens
BAA96365.2	AB043960	Bruguiera gymnorhiza	BAA36422.1	AB013597	Perilla frutescens
CAA35601.1	X17578	Solanum tuberosum	BAA93039.1	AB033758	Citrus unshiu
CAA78043.1	Z11999	Lycopersicon esculentum	AAF61647.1	AF190634	Nicotiana tabacum
BAA02554.1	D13297	Pisum sativum	AAF98390.1	AF287143	Brassica napus
AAC04808.1	AF037457	Eritillaria agrestis	AAF17077.1	AF199453	Sorghum bicolor
CAA29062.1	X05548	Spinacia oleracea	BAA83484.1	AB031274	Scutellaria baicalensis
CAA04670.1	X57408	Triticum aestivum	AAD21086.1	AF127218	Forsythia x intermedia
AAD38521.1	AF139818	Brassica napus	BAA12737.1	D85186	Gentiana triflora
AAD55562.1	AF110780	Volvox carteri f. nagariensis	AAK28303.1	AF346431	Nicotiana tabacum
CAA36674.1	X52427	Lycopersicon esculentum	CAB56231.1	Y18871	Dorotheanthus bellidiformis
SEQ ID NO. 2109			CAA54612.1	X77462	Manihot esculenta
CAA55090.1	X78284	Medicago sativa	BAB41019.1	AB047092	Vitis vinifera
CAC12883.1	AJ295006	Nicotiana tabacum	BAB41020.1	AB047093	Vitis vinifera
BAA92964.1	AP001551	Oryza sativa	AAAB36653.1	U32644	Nicotiana tabacum
AAB82139.1	AF022736	Oryza sativa	BAB41025.1	AB047098	Vitis vinifera
CAA64625.1	X95313	Chlamydomonas reinhardtii	BAB41023.1	AB047096	Vitis vinifera
			BAB41022.1	AB047095	Vitis vinifera
			BAB41021.1	AB047094	Vitis vinifera

BAA19659.1	AB002818	Perilla frutescens	CAC22329.1	AJ298303	Fagus sylvatica
BAB41026.1	AB047099	Vitis vinifera	AAB67852.1	L76377	Oryza sativa
BAB41024.1	AB047097	Vitis vinifera	CAB36911.1	AJ000692	Quercus suber
AAK28304.1	AF346432	Nicotiana tabacum	SEQ ID NO. 2120		
AAB36652.1	U32643	Nicotiana tabacum	AAB61593.1	AF003125	Mesembryanthemum crystalli
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	AAA33665.1	M31713	Pisum sativum
BAA89008.1	AB027454	Petunia x hybrida	AAD02175.1	AF039662	Capsicum annuum
CAA59450.1	X85138	Lycopersicon esculentum	AAA34028.1	M35660	Spinacia oleracea
CAA54614.1	X77464	Manihot esculenta	CAA26281.1	X02432	Silene latifolia subsp. al
CAA54611.1	X77461	Manihot esculenta	CAA99756.1	Z75520	Lycopersicon esculentum
CAA54613.1	X77463	Manihot esculenta	AAA33459.1	M73829	Zea mays
SEQ ID NO. 2116			AAA33460.1	M73830	Zea mays
AAD44809.1	AF148648	Nicotiana tabacum	CAA52980.1	X75089	Triticum aestivum
AAD44808.1	AF147203	Spinacia oleracea	BAA06436.1	D30763	Oryza sativa
SEQ ID NO. 2118			AAA33462.1	M73828	Zea mays
AAD55090.1	AF178653	Vitis riparia	BAA32348.1	AB016810	Zea mays
CAA51432.1	X72928	Solanum commersonii	AAK15005.1	AF233452	Impatiens balsamina
CAA47601.1	X67121	Solanum commersonii	AAC49171.1	U29516	Chlamydomonas reinhardtii
CAC34055.1	AJ297410	Capsicum annuum	AAA33085.1	L10349	Chlamydomonas reinhardtii
CAA47047.1	X66416	Lycopersicon esculentum	CAA87068.1	Z46944	Citrus sinensis
AAB23375.1	S44889	Nicotiana tabacum	AAB65699.1	AF010320	Oryza sativa
AAB22459.2	S40046	Nicotiana tabacum	CAA73265.1	Y12734	Physcomitrella patens
AAG16625.1	AY007309	Solanum dulcamara	AAA33461.1	M73831	Zea mays
CAA46623.1	X65701	Nicotiana tabacum	BAA06456.1	D30794	Oryza sativa
CAA46622.1	X65700	Nicotiana tabacum	BAA90760.1	AB038037	Ipomoea nil
CAA51431.1	X72927	Nicotiana tabacum	BAA19865.1	D83660	Oryza sativa
CAA64620.1	X95308	Solanum commersonii	SEQ ID NO. 2121		
CAA51430.1	X72926	Nicotiana tabacum	AAD32141.1	AF123503	Nicotiana tabacum
AAC64171.1	AF093743	Lycopersicon esculentum	CAA42636.1	X60033	Glycine max
AAB61590.1	AF003007	Vitis vinifera	BAA96221.1	AF002094	Oryza sativa
BAA11180.1	D76437	Nicotiana sylvestris	SEQ ID NO. 2122		
AAA34087.1	M64081	Nicotiana tabacum	AAC63372.1	AF093751	Brassica oleracea
CAA47669.1	X67244	Solanum commersonii	AAB37228.1	U22105	Brassica napus
CAA71883.1	Y10992	Vitis vinifera	AAA73945.1	L33904	Brassica oleracea
AAF13707.1	AF199508	Fragaria x ananassa	AAA73946.1	L33905	Brassica oleracea
AAA34089.1	M29279	Nicotiana tabacum	AAA64310.1	U22174	Brassica napus
CAA43854.1	X61679	Nicotiana tabacum	AAA73947.1	L33906	Brassica oleracea
CAA04642.1	AJ001268	Hordeum vulgare	AAA73948.1	L33907	Brassica oleracea
CAC22330.1	AJ298304	Fagus sylvatica			

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AAA87579.1	U45856	Zea mays	AAA03618.1	M80608	Lycopersicon esculentum
AAA03442.1	U02886	Atriplex nummularia	AAAC19114.1	AF067863	Solanum tuberosum
CAA53269.1	X75597	Atriplex nummularia	AAA18928.1	U01901	Solanum tuberosum
AAA33033.1	J05223	Mesembryanthemum crystallinum	AAA63539.1	M60402	Nicotiana tabacum
AAA33031.1	M29956	Mesembryanthemum crystallinum	AAA63540.1	M60403	Nicotiana tabacum
CAA55116.1	X78307	Craterostigma plantagineum	AAA88794.1	U01900	Solanum tuberosum
AAA87580.1	U45857	Zea mays	AAA63541.1	M59442	Nicotiana tabacum
CAA42103.1	X59517	Antirrhinum majus	AAAB2772.2	AF001523	Musa acuminata
AAA82047.1	U31676	Oryza sativa	AAAF08679.1	AF004838	Musa acuminata
AAG23799.1	AF260733	Cucurbita pepo	AAA19111.1	U01902	Solanum tuberosum
CAA42904.1	X60346	Petunia x hybrida	AAC04710.1	AF034106	Glycine max
CAA51071.1	X72381	Physcomitrella patens	AAC04714.1	AF034113	Glycine max
CAA42905.1	X60347	Magnolia liliiflora	CAB91554.1	AJ277900	Vitis vinifera
			AAA34082.1	M20620	Nicotiana tabacum
			CAA03908.1	AJ000081	Citrus sinensis
SEQ ID NO. 2128			AAAB03501.1	U41323	Glycine max
CAA72092.1	Y11209	Nicotiana tabacum	AAA92013.1	U49454	Prunus persica
AAD02069.1	AF036939	Chlamydomonas reinhardtii	AAA33946.1	M37753	Glycine max
AAC49896.1	AF027727	Chlamydomonas reinhardtii	AAA63542.1	M59443	Nicotiana tabacum
AAD55566.1	AF110784	Volvox carteri f. nagariensis	AAF34761.1	AF227953	Capsicum annuum
CAC21230.1	AJ277379	Triticum turgidum subsp. durum	AAD33881.1	AF141654	Nicotiana tabacum
AAA19660.1	U11496	Triticum aestivum	AAG34080.1	AF294849	Capsicum annuum
CAC21231.1	AJ277380	Triticum turgidum subsp. durum	AAF33405.1	AF230109	Populus x canescens
CAC21229.1	AJ277378	Triticum turgidum subsp. durum	AAD33380.1	AF141653	Nicotiana tabacum
CAC21228.1	AJ277377	Triticum turgidum subsp. durum	CAAS7255.1	X81560	Nicotiana tabacum
AAAB05641.1	U41385	Ricinus communis	AAA34053.1	M60464	Nicotiana tabacum
CAA77575.1	Z11499	Medicago sativa			
AAD28260.1	AF131223	Datisca glomerata	SEQ ID NO. 2131		
BAA92322.1	AB039278	Oryza sativa	AAD37698.1	AF145729	Oryza sativa
BAA77026.1	AB026252	Lithospermum erythrorhizon	BAA05624.1	D26575	Daucus carota
			AAF01765.1	AF184278	Glycine max
			CAA64417.1	X94947	Lycopersicon esculentum
SEQ ID NO. 2130			BAA93465.1	AB028077	Physcomitrella patens
AAA87456.1	U22147	Hevea brasiliensis	BAB18171.1	AB042769	Zinnia elegans
CAB38443.1	AJ133470	Hevea brasiliensis	BAA93460.1	AB028072	Physcomitrella patens
AAG24921.1	AF311749	Hevea brasiliensis	BAA93466.1	AB028078	Physcomitrella patens
AAF44667.1	AF239617	Vitis vinifera	BAA93461.1	AB028073	Physcomitrella patens
AAAB41551.1	U27179	Medicago sativa subsp. sativa	BAA05625.1	D26576	Daucus carota
AAAB24398.1	S51479	Pisum sativum	BAA05622.1	D26573	Daucus carota
CAA37289.1	X53129	Phaseolus vulgaris	BAA93467.1	AB028079	Physcomitrella patens
AAA34078.1	M63634	Nicotiana plumbaginifolia	BAA93464.1	AB028076	Physcomitrella patens
AAA51643.1	M23120	Nicotiana plumbaginifolia			
CAA30261.1	X07280	Nicotiana plumbaginifolia			

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AAD37697.1	AF145728	Oryza sativa	CAC10514.1	AJ299019	Samanea saman
AAF01764.2	AF184277	Glycine max	CAC05488.1	AJ271446	Populus tremula x Populus tremuloides
BAA21017.1	D26578	Daucus carota	SEQ ID NO. 2134		
BAB18168.1	AB042766	Zinnia elegans	CAA55693.1	X79086	Zea mays
BAA93468.1	AB028080	Physcomitrella patens	CAA55691.1	X79085	Zea mays
BAA05623.1	D26574	Daucus carota	AAF97508.1	AF242298	Oryza sativa
AAD37699.1	AF145730	Oryza sativa			
AAD38144.1	AF139497	Prunus armeniaca	SEQ ID NO. 2135		
AAA63768.2	AF339748	Helianthus annuus	AAG43509.1	AF210049	Petunia x hybrida
BAA93463.1	AB028075	Physcomitrella patens	CAA44807.1	X63093	Lycopersicon esculentum
CAA64491.1	X95193	Pimpinella brachycarpa			
CAA64221.1	X94449	Pimpinella brachycarpa	SEQ ID NO. 2136		
CAA64152.1	X94375	Pimpinella brachycarpa	AAG41776.1	AF212990	Cucurbita maxima
AAD37700.1	AF145731	Oryza sativa	BAB12433.1	AB025030	Coptis japonica
AAD37695.1	AF145726	Oryza sativa	AAB17562.1	U72654	Eustoma grandiflorum
CAA06728.1	AJ005833	Craterostigma plantagineum	CAA50647.1	X71656	Solanum melongena
CAA62608.1	X91212	Lycopersicon esculentum	AAD56282.1	AF155332	Petunia x hybrida
CAA63222.1	X92489	Glycine max	AAB94587.1	AF022458	Glycine max
CAA65456.2	X96681	Oryza sativa	AAC39453.1	AF014801	Eschscholzia californica
AAE19980.1	AF211193	Oryza sativa	AAC39452.1	AF014800	Eschscholzia californica
			AAA32913.1	M32885	Persea americana
SEQ ID NO. 2132			CAA50155.1	X70824	Solanum melongena
AAF33669.1	AF079871	Nicotiana tabacum	CAA50648.1	X71657	Solanum melongena
AAF33670.1	AF079872	Nicotiana tabacum	AAB94593.1	AF022464	Glycine max
AAB53255.1	U65390	Nicotiana tabacum	AAB94588.1	AF022459	Glycine max
CAB62555.1	AJ249962	Daucus carota	BAA84071.1	AB028151	Antirrhinum majus
CAA65254.1	X96390	Lycopersicon esculentum	AAF05621.1	AF191772	Papaver somniferum
BAA96150.1	AP002092	Oryza sativa	CAA70575.1	Y09423	Nepeta racemosa
CAB54856.1	AJ132686	Zea mays	AAC32274.1	AF081575	Petunia x hybrida
BAA96192.1	AF002093	Oryza sativa	AAD37433.1	AF150881	Lycopersicon esculentum x
AAD39492.1	AF145272	Samanea saman	Lycopersicon peruvianum		
CAA56175.1	X79779	Solanum tuberosum	BAA92894.1	AB006790	Petunia x hybrida
CAA68912.1	Y07632	Zea mays	BAB40324.1	AB037245	Asparagus officinalis
CAA71598.1	Y10579	Vicia faba	CAA70576.1	Y09424	Nepeta racemosa
CAC05489.1	AJ271447	Populus tremula x Populus tremuloides	AAB94589.1	AF022460	Glycine max
AAD16278.1	AF099095	Samanea saman	BAB40323.1	AB037244	Asparagus officinalis
AAF81251.1	AF267755	Mesembryanthemum crystallinum	AAD47832.1	AF166332	Nicotiana tabacum
BAA84085.1	AB032074	Nicotiana paniculata			
AAF36832.1	AF207745	Triticum aestivum	SEQ ID NO. 2138		
CAA12645.1	AJ225805	Egeria densa			





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AAC32818.1	AF050181	Oryza sativa	AAC49583.1	U48692	Triticum aestivum
BBB18583.1	AB043955	Ceratopteris richardii	AAC49582.1	U48691	Triticum aestivum
AAD13611.1	AF100455	Zea mays	AAK25753.1	AF334833	Castanea sativa
BAB18582.1	AB043954	Ceratopteris richardii	AAA33706.1	M80836	Petunia x hybrida
BAB18584.1	AB043956	Ceratopteris richardii	CAA74307.1	Y13974	Zea mays
AAC33008.1	AF080104	Pisum sativum	AAA33705.1	M80831	Petunia x hybrida
AAC32817.1	AF050180	Oryza sativa	AAD10244.1	AF030032	Phaseolus vulgaris
AAD09582.1	U76409	Lycopersicon esculentum	CAA36644.1	X52398	Medicago sativa
AAD00252.1	U76408	Lycopersicon esculentum	CAA43143.1	X60738	Malus x domestica
AAG27464.1	AF308454	Medicago truncatula	CAA78301.1	Z12839	Lilium longiflorum
AAC49917.1	AF000141	Lycopersicon esculentum	AAB68399.1	U79736	Helianthus annuus
AAD00251.1	U76407	Lycopersicon esculentum	CAA42423.1	X59751	Daucus carota
AAF23753.2	AF193813	Brassica oleracea	AAA34238.1	L20507	Vigna radiata
SEQ ID NO. 2157			AAG27432.1	AF295637	Elaeis guineensis
AAF31151.1	AF078679	Olea europaea	AAG11418.1	AF292108	Prunus avium
AAF31152.1	AF078680	Olea europaea	CAA74111.1	Y13784	Mougeotia scalaris
CAB63264.1	AJ251808	Lotus japonicus	AAA92681.1	U13882	Pisum sativum
AAA92677.1	U13736	Pisum sativum	SEQ ID NO. 2158		
AAA33083.1	M20729	Chlamydomonas reinhardtii	AAG43835.1	AF213455	Zea mays
BAA94697.1	AB041712	Chara corallina	AAC36698.1	AF075580	Mesembryanthemum crystallinum
BAA94696.1	AB041711	Chara corallina	CAC10359.1	AJ277087	Nicotiana tabacum
BAA96536.1	AB044286	Chara corallina	CAB90633.1	AJ277743	Fagus sylvatica
AAK11255.1	AF329729	Nicotiana tabacum	AAC36697.1	AF075579	Mesembryanthemum crystallinum
AAB67884.1	U62865	Dunaliella salina	CAC10358.1	AJ277086	Nicotiana tabacum
CAA67054.1	X98404	Capsicum annuum	CAA72341.1	Y11607	Medicago sativa
BAA87825.1	AP000815	Oryza sativa	AAD17804.1	AF092431	Lotus japonicus
CAA62150.1	X90560	Physcomitrella patens	AAC36700.1	AF075582	Mesembryanthemum crystallinum
AAB46588.1	U83402	Capsicum annuum	CAC09575.1	AJ298987	Fagus sylvatica
AAA85155.1	U20294	Solanum tuberosum	AAD17805.1	AF092432	Lotus japonicus
AAA62351.1	U20295	Solanum tuberosum	AAC36699.1	AF075581	Mesembryanthemum crystallinum
AAA85156.1	U20296	Solanum tuberosum	AAC26828.1	AF075603	Oryza sativa
AAA85157.1	U20297	Solanum tuberosum	CAB90634.1	AJ277744	Fagus sylvatica
AAF65511.1	AF108889	Capsicum annuum	AAB93832.1	U81960	Zea mays
CAA61980.1	X89890	Bidens pilosa	AAD11430.1	AF097667	Mesembryanthemum crystallinum
AAA33900.1	L18914	Oryza sativa	AAC35951.1	AF079355	Mesembryanthemum crystallinum
CAA78288.1	Z12828	Oryza sativa	CAC09576.1	AJ298988	Fagus sylvatica
CAA54583.1	X77397	Zea mays	SEQ ID NO. 2159		
AAA87347.1	M88307	Brassica juncea	BAB19864.1	AB052885	Oryza sativa
AAA19571.1	U10150	Brassica napus	CAA04511.1	AJ001061	Vitis vinifera
AAD10245.1	AF030033	Phaseolus vulgaris			

Accession	Species	Accession	Species	Accession	Species	Accession	Species
U38651	Medicago truncatula	BAA96628.1	Oryza sativa	AP002482	Oryza sativa	U38651	Medicago truncatula
293775	Vicia faba	CAA73068.1	Sorghum bicolor	Y12465	Sorghum bicolor	293775	Vicia faba
X66856	Nicotiana tabacum	CAA73067.1	Sorghum bicolor	Y12464	Sorghum bicolor	X66856	Nicotiana tabacum
Y09590	Vitis vinifera	CAA65244.1	Solanum tuberosum	X95997	Solanum tuberosum	Y09590	Vitis vinifera
L08196	Ricinus communis	CAA07813.1	Hordeum vulgare	AJ007990	Hordeum vulgare	L08196	Ricinus communis
L08188	Ricinus communis	CAA46556.1	Hordeum vulgare	X65606	Hordeum vulgare	L08188	Ricinus communis
AB052884	Oryza sativa	CAA46554.1	Hordeum vulgare	X65604	Hordeum vulgare	AB052884	Oryza sativa
AJ132224	Lycopersicon esculentum	AB05457.1	Oryza sativa	U55768	Oryza sativa	AJ132224	Lycopersicon esculentum
AJ010942	Lycopersicon esculentum	AB062693.1	Oryza sativa	AF004947	Oryza sativa	AJ010942	Lycopersicon esculentum
Z83829	Picea abies	BAA83689.1	Oryza sativa	AB011968	Oryza sativa	Z83829	Picea abies
AB052883	Oryza sativa	BAA83688.1	Oryza sativa	AB011967	Oryza sativa	AB052883	Oryza sativa
Y07520	Chlorella kessleri	AAF22219.1	Zea mays	AF141378	Zea mays	Y07520	Chlorella kessleri
X55349	Chlorella kessleri	BAA34675.1	Triticum aestivum	AB011670	Triticum aestivum	X55349	Chlorella kessleri
X75440	Chlorella kessleri	SEQ ID NO. 2164				X75440	Chlorella kessleri
AJ132223	Lycopersicon esculentum	AAB58348.1	Triticum aestivum	U29095	Triticum aestivum	AJ132223	Lycopersicon esculentum
AF173655	Beta vulgaris	AAD00239.1	Nicotiana tabacum	U73938	Nicotiana tabacum	AF173655	Beta vulgaris
AJ132225	Lycopersicon esculentum	AAA96325.1	Triticum aestivum	M94726	Triticum aestivum	AJ132225	Lycopersicon esculentum
AF215837	Apium graveolens var. dulce	CAA81443.1	Mesembryanthemum crystallinum	Z26846	Mesembryanthemum crystallinum	AF215837	Apium graveolens var. dulce
AF215853	Solanum tuberosum	AAG60195.1	Oryza sativa	AC084763	Oryza sativa	AF215853	Solanum tuberosum
AF215851	Spinacia oleracea	BAA19573.1	Oryza sativa	AB002109	Oryza sativa	AF215851	Spinacia oleracea
AF215852	Nicotiana tabacum	BAA13608.1	Oryza sativa	D88399	Oryza sativa	AF215852	Nicotiana tabacum
AF215854	Zea mays	AAD00240.1	Nicotiana tabacum	U73939	Nicotiana tabacum	AF215854	Zea mays
SEQ ID NO. 2163		AAB68962.1	Glycine max	L38855	Glycine max	SEQ ID NO. 2163	
L38855	Glycine max	CAA06503.1	Craterostigma plantagineum	AJ005373	Craterostigma plantagineum	L38855	Glycine max
AJ005373	Craterostigma plantagineum	AAF27340.1	Vicia faba	AF186020	Vicia faba	AJ005373	Craterostigma plantagineum
AC084763	Oryza sativa	AAC98509.1	Chlamydomonas reinhardtii	AF100162	Chlamydomonas reinhardtii	AC084763	Oryza sativa
D88399	Oryza sativa	BAA96628.1	Oryza sativa	AP002482	Oryza sativa	D88399	Oryza sativa
U73938	Nicotiana tabacum	CAA73067.1	Sorghum bicolor	Y12464	Sorghum bicolor	U73938	Nicotiana tabacum
AB002109	Oryza sativa	CAA71142.1	Cucumis sativus	Y10036	Cucumis sativus	AB002109	Oryza sativa
U29095	Triticum aestivum	AAD23582.1	Glycine max	AF128443	Glycine max	U29095	Triticum aestivum
U73939	Nicotiana tabacum	CAA73068.1	Sorghum bicolor	Y12465	Sorghum bicolor	U73939	Nicotiana tabacum
Z26846	Mesembryanthemum crystallinum	BAA05649.1	Nicotiana tabacum	D26602	Nicotiana tabacum	Z26846	Mesembryanthemum crystallinum
M94726	Triticum aestivum	CAG5244.1	Solanum tuberosum	X95997	Solanum tuberosum	M94726	Triticum aestivum
AF186020	Vicia faba	CAA57898.1	Hordeum vulgare	X82548	Hordeum vulgare	AF186020	Vicia faba
AF100162	Chlamydomonas reinhardtii	AAC99329.1	Oryza sativa	AF062479	Oryza sativa	AF100162	Chlamydomonas reinhardtii
AF128443	Glycine max	CAA07813.1	Hordeum vulgare	AJ007990	Hordeum vulgare	AF128443	Glycine max
D26602	Nicotiana tabacum	CAA46556.1	Hordeum vulgare	X65606	Hordeum vulgare	D26602	Nicotiana tabacum
Y10036	Cucumis sativus	AAB05457.1	Oryza sativa	U55768	Oryza sativa	Y10036	Cucumis sativus
X82548	Hordeum vulgare	CAG46554.1	Hordeum vulgare	X65604	Hordeum vulgare	X82548	Hordeum vulgare
AF062479	Oryza sativa	AAF22219.1	Zea mays	AF141378	Zea mays	AF062479	O

BAA83688.1	AB011967	Oryza sativa	BAA88222.1	AB028650	Nicotiana tabacum
BAA83689.1	AB011968	Oryza sativa	BAA81736.1	AB029165	Glycine max
BAA34675.1	AB011670	Triticum aestivum	AAA33500.1	M73028	Zea mays
AAB62693.1	AF004947	Oryza sativa	AAG36774.1	AF210616	Zea mays
SEQ ID NO. 2165			BAA23339.1	D88619	Oryza sativa
CAA72271.1	Y11483	Brassica napus	CAA72217.1	Y11414	Oryza sativa
CAA72270.1	Y11482	Brassica napus	BAA81733.2	AB029162	Glycine max
AAB72097.1	AF021257	Hordeum vulgare	BAA88224.1	AB028652	Nicotiana tabacum
AAB72096.1	AF021256	Hordeum vulgare	CAA66952.1	X98308	Lycopersicon esculentum
SEQ ID NO. 2166			SEQ ID NO. 2169		
AAA86424.1	U44386	Lycopersicon esculentum	BAA95893.1	AP002071	Oryza sativa
AAF05766.1	AF192758	Glycine max	CAB51834.1	00069	Oryza sativa
SEQ ID NO. 2168			AAB09771.1	U67422	Zea mays
AAK19619.1	AF336286	Gossypium hirsutum	AAK11566.1	AF318490	Lycopersicon hirsutum
CAA64614.1	X95296	Lycopersicon esculentum	CAA97692.1	Z73295	Catharanthus roseus
CAA50224.1	X70879	Hordeum vulgare	AAK11674.1	AF339747	Lophopyrum elongatum
CAA50222.1	X70877	Hordeum vulgare	AAF43496.1	AF131222	Lophopyrum elongatum
CAA50221.1	X70876	Hordeum vulgare	AAF76313.1	AF220603	Lycopersicon esculentum
BAA23337.1	D88617	Oryza sativa	AB47421.1	U59316	Lycopersicon esculentum
BAA23338.1	D88618	Oryza sativa	AB47423.1	U59315	Lycopersicon pimpinellifolium
CAA72218.1	Y11415	Oryza sativa	AAK48914.1	U02271	Lycopersicon pimpinellifolium
CAA78386.1	Z13996	Petunia x hybrida	AAF76306.1	AF220602	Lycopersicon hirsutum
AAK19616.1	AF336283	Gossypium hirsutum	AAK11567.1	AF318491	Lycopersicon hirsutum
CAB43399.1	AJ006292	Antirrhinum majus	AAK21965.1	AY028699	Brassica napus
CAA50225.1	X70880	Hordeum vulgare	AAG25966.1	AF302082	Nicotiana tabacum
AAF22256.1	AF161711	Pimpinella brachycarpa	AAK11569.1	AF318493	Lycopersicon hirsutum
AAK19611.1	AF336278	Gossypium hirsutum	AAF66615.1	AF142596	Nicotiana tabacum
AAK19617.1	AF336284	Gossypium hirsutum	AAK03090.1	AC073405	Oryza sativa
CAA72186.1	Y11351	Oryza sativa	BAA83373.1	AP000391	Oryza sativa
CAA67600.1	X99210	Lycopersicon esculentum	BAA84787.1	AP000559	Oryza sativa
AAK19615.1	AF336282	Gossypium hirsutum	CAA74662.1	Y14286	Brassica oleracea
AAK19618.1	AF336285	Gossypium hirsutum	CAA67145.1	X98520	Brassica oleracea
BAA81732.1	AB029161	Glycine max	CAA73133.1	Y12530	Brassica oleracea
CAA72185.1	Y11350	Oryza sativa	AAK11568.1	AF318492	Lycopersicon hirsutum
AAG13574.1	AC037425	Oryza sativa	BAA78764.1	AB023482	Oryza sativa
BAA81731.1	AB029160	Glycine max	BAA94509.1	AB041503	Populus nigra
BAA81730.1	AB029159	Glycine max	BAA94510.1	AB041504	Populus nigra
CAA78387.1	Z13997	Petunia x hybrida	SEQ ID NO. 2172		
			BAA22422.1	AB001379	Glycyrrhiza echinata

BAA74465.1	AB022732	Glycyrrhiza echinata	AAG34808.1	AF243373	Glycine max
CAB43505.1	AJ239051	Cicer arietinum	AAG34800.1	AF243365	Glycine max
CAB41490.1	AJ238439	Cicer arietinum	CAA71784.1	Y10820	Glycine max
CAA10067.1	AJ012581	Cicer arietinum	AAG34844.1	AF244701	Zea mays
BAA93634.1	AB025016	Lotus japonicus	AAA68430.1	J03679	Solanum tuberosum
CAA04117.1	AJ000478	Helianthus tuberosus	CAA04391.1	AJ000923	Carica papaya
CAA04116.1	AJ000477	Helianthus tuberosus	AAG34831.1	AF244688	Zea mays
AAD56282.1	AF155332	Petunia x hybrida	CAA09187.1	AJ010448	Alopecurus myosuroides
BAA12159.1	D83968	Glycine max	CAA09188.1	AJ010449	Alopecurus myosuroides
BAE94590.1	AF022461	Glycine max	AAG34802.1	AF243367	Glycine max
CAA65580.1	X96784	Nicotiana tabacum	AAG34805.1	AF243370	Glycine max
AAA32913.1	M32885	Persea americana	AAG34832.1	AF244689	Zea mays
AAG09208.1	AF175278	Pisum sativum	AAG34837.1	AF244694	Zea mays
CAB56742.1	AJ249800	Cicer arietinum	AAG34836.1	AF244693	Zea mays
AAC49188.2	U29333	Pisum sativum	AAG34849.1	AF244706	Zea mays
AAG44132.1	AF218296	Pisum sativum	CAC24549.1	AJ296343	Cichorium intybus x Cichorium
BAA13076.1	D86351	Glycine max	endivia		
AAC39454.1	AF014802	Eschscholzia californica	AAC32118.1	AF051214	Picea mariana
CAA64635.1	X95342	Nicotiana tabacum	AAG34795.1	AF243360	Glycine max
AAD38930.1	AF135485	Glycine max	AAG34841.1	AF244698	Zea mays
AAB17562.1	U72654	Eustoma grandiflorum	AAF29773.1	AF159229	Gossypium hirsutum
BAA92894.1	AB006790	Petunia x hybrida	SEQ ID NO. 2174		
AAC32274.1	AF081575	Petunia x hybrida	AAB67714.1	AF013161	Prunus serotina
BAA84072.1	AB028152	Torenia hybrida	CAA51194.1	X72617	Prunus serotina
CAA50155.1	X70824	Solanum melongena	AAB38536.1	U78814	Prunus serotina
BAB40324.1	AB037245	Asparagus officinalis	CAA69388.1	Y08211	Prunus dulcis
BAB40323.1	AB037244	Asparagus officinalis	AAB96764.1	AF040079	Prunus serotina
BAA74466.1	AB022733	Glycyrrhiza echinata	AAB96763.1	AF040078	Prunus serotina
SEQ ID NO. 2173			AAC61982.1	AF053886	Prunus serotina
AAF64450.1	AF239928	Euphorbia esula	AAC61981.1	AF053885	Prunus serotina
AAG34803.1	AF243368	Glycine max	AAC61980.1	AF053884	Prunus serotina
AAG34796.1	AF243361	Glycine max	AAD02266.1	AF043187	Prunus serotina
AAG34809.1	AF243374	Glycine max	AAD02265.1	AF043186	Prunus serotina
AAG34797.1	AF243362	Glycine max	SEQ ID NO. 2176		
AAG34807.1	AF243372	Glycine max	CAA58994.1	X84208	Sinapis alba
AAG34798.1	AF243363	Glycine max	CAA76116.1	Y16190	Sinapis alba
AAG34804.1	AF243369	Glycine max	SEQ ID NO. 2177		
AAG34801.1	AF243366	Glycine max	CAA68190.1	X99922	Brassica napus
AAG34810.1	AF243375	Glycine max			
AAC18566.1	AF048978	Glycine max			

SEQ ID NO.	2181	2182	2183	2184	2185
CAA66035.1	X97349	Populus balsamifera subsp.			
trichocarpa					
CAA76680.1	Y17192	Cucurbita pepo			
CAA66036.1	X97350	Populus balsamifera subsp.			
trichocarpa					
BAA08499.1	D49551	Oryza sativa			
BAA92500.1	AP001383	Oryza sativa			
CAC21393.1	AJ401276	Zea mays			
SEQ ID NO.	2183				
AAD03415.1	AF069494	Sinapis alba			
AA85440.1	U32624	Sorghum bicolor			
AAE27289.1	AF140613	Manihot esculenta			
AAE27290.1	AF140614	Manihot esculenta			
AAE6543.1	AF140609	Triglochin maritimum			
AAE6544.1	AF140610	Triglochin maritimum			
BAA92894.1	AB006790	Petunia x hybrida			
AAD56282.1	AF155332	Petunia x hybrida			
CAA50155.1	X70824	Solanum melongena			
AAA32913.1	X32885	Persea americana			
CAA64635.1	X95342	Nicotiana tabacum			
CAA65580.1	X96784	Nicotiana tabacum			
AAC32274.1	AF081575	Petunia x hybrida			
CAB43505.1	AJ239051	Cicer arietinum			
CAA04117.1	AJ000478	Helianthus tuberosus			
CAA04116.1	AJ000477	Helianthus tuberosus			
AAB17562.1	U72654	Eustoma grandiflorum			
AAG09208.1	AF175278	Pisum sativum			
BAA93634.1	AB025016	Lotus japonicus			
AAG44132.1	AF218296	Pisum sativum			
AAC49188.2	U29333	Pisum sativum			
AAB94587.1	AF022458	Glycine max			
AAB94590.1	AF022461	Glycine max			
BAA12159.1	D83968	Glycine max			
BAA84071.1	AB028151	Antirrhinum majus			
AAB94588.1	AF022459	Glycine max			
BAA74465.1	AB022732	Glycyrrhiza echinata			
BAA84072.1	AB028152	Torenia hybrida			
SEQ ID NO.	2184				
CAA62228.1	X90695	Medicago sativa			

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CAA09881.1	AJ011939	Trifolium repens	AAA65637.1	L13654	Lycopersicon esculentum
CAA71495.1	Y10469	Spinacia oleracea	CAA71488.1	Y10462	Spinacia oleracea
AAB41812.1	L36158	Medicago sativa	AAA32676.1	M37637	Arachis hypogaea
AAD11483.1	U51193	Glycine max	BAA77389.1	AB024439	Scutellaria baicalensis
AAF63024.1	AF244921	Spinacia oleracea	CAA40796.1	X57564	Armoracia rusticana
AAD11484.1	U51194	Glycine max			
AAB67737.1	L77080	Stylosanthes humilis	SEQ ID NO. 2186		
CRA62226.1	X90693	Medicago sativa	AAG34803.1	AF243368	Glycine max
CRA62227.1	X90694	Medicago sativa	AAG34797.1	AF243362	Glycine max
AAC98519.1	AF007211	Glycine max	AAG34798.1	AF243363	Glycine max
BAA77387.1	AB024437	Scutellaria baicalensis	AAF64450.1	AF239928	Euphorbia esula
CAB67121.1	Y19023	Lycopersicon esculentum	AAG34796.1	AF243361	Glycine max
CAA50597.1	X71593	Lycopersicon esculentum	AAG34801.1	AF243366	Glycine max
CAB94692.1	AJ242742	Ipomoea batatas	AAG34804.1	AF243369	Glycine max
AAA98491.1	L36981	Petroselinum crispum	AAG34807.1	AF243372	Glycine max
AAD11481.1	U51191	Glycine max	AAG34809.1	AF243374	Glycine max
BAA01950.1	D11337	Vigna angularis	AAG34810.1	AF243375	Glycine max
AAD11482.1	U51192	Glycine max	AAG34802.1	AF243367	Glycine max
CAA66037.1	X97351	Populus balsamifera subsp.	AAG34808.1	AF243373	Glycine max
trichocarpa			AAG34844.1	AF244701	Zea mays
AAB41810.1	L36156	Medicago sativa	CAA09188.1	AJ010449	Alopecurus myosuroides
AAD37427.1	AF149277	Phaseolus vulgaris	CAA09187.1	AJ010448	Alopecurus myosuroides
BAA07664.1	D42065	Nicotiana tabacum	AAA68430.1	J03679	Solanum tuberosum
CAC21393.1	AJ401276	Zea mays	AAG34837.1	AF244694	Zea mays
BAA82306.1	AB027752	Nicotiana tabacum	AAG34800.1	AF243365	Glycine max
BAA07663.1	D42064	Nicotiana tabacum	AAG34831.1	AF244688	Zea mays
BAA06335.1	D30653	Populus kitakamiensis	AAC32118.1	AF051214	Picea mariana
CAA62225.1	X90692	Medicago sativa	AAG34805.1	AF243370	Glycine max
AAA34050.1	M74103	Nicotiana sylvestris	AAC18566.1	AF048978	Glycine max
AAD37430.1	AF149280	Phaseolus vulgaris	AAG34829.1	AF244686	Zea mays
AAB41811.1	L36157	Medicago sativa	CAA04391.1	AJ000923	Carica papaya
BAA14144.1	D90116	Armoracia rusticana	CAA71784.1	Y10820	Glycine max
BAA01877.1	D11102	Populus kitakamiensis	AAG34795.1	AF243360	Glycine max
CAA59485.1	X85228	Triticum aestivum	AAG34836.1	AF244693	Zea mays
BAA14143.1	D90115	Armoracia rusticana	AAG34832.1	AF244689	Zea mays
CAA66034.1	X97348	Populus balsamifera subsp.	AAG34833.1	AF244690	Zea mays
trichocarpa			AAG34849.1	AF244706	Zea mays
CAA76376.1	Y16778	Spinacia oleracea	AAG34806.1	AF243371	Glycine max
AAB34108.1	J02979	Nicotiana tabacum	CAA09189.1	AJ010450	Alopecurus myosuroides
BAA96643.1	AF002482	Oryza sativa			
AAB32973.1	M73234	Hordeum vulgare	SEQ ID NO. 2187		



AAD02848.1	AF086839	Populus tremula x Populus	AAG28490.1	AF196350	Lophopyrum elongatum
tremuloides					
BAA36555.1	AB011798	Citrus unshiu	SEQ ID NO. 2190		Mesembryanthemum crystalli
CAB66329.1	AJ279687	Betula pendula	AAF05112.1	AF158091	Lycopersicon esculentum
CAB77357.1	U79562	Pisum sativum	AAF19402.1	AF203480	Lycopersicon esculentum
CAB61887.1	AJ250003	Lycopersicon esculentum	AAF19403.1	AF203481	Kalanchoe fedtschenkoi
BAA36556.1	AB011799	Citrus unshiu	AAF06969.1	AF162661	Kalanchoe fedtschenkoi
BAB40808.1	AB058921	Nicotiana suaveolens x	AAF06970.1	AF162662	Glycine max
Nicotiana tabacum			AAF19401.1	AF203479	Brassica napus
AAB16804.1	U68560	Malus x domestica	AAF19404.1	AF203482	Ipomoea batatas
BAB40809.1	AB058922	Nicotiana suaveolens x	BAA13440.1	D87707	Daucus carota
Nicotiana tabacum			CAA39936.1	X56599	Mesembryanthemum crystalli
AAC32147.1	AF051247	Picea mariana	AAD17800.1	AF090835	Solanum tuberosum
CAB56223.1	AJ133276	Hordeum vulgare	AAD28192.2	AF115406	Fragaria x ananassa
CAB56224.1	AJ133277	Hordeum vulgare	AAB88537.1	AF035944	Nicotiana tabacum
AAC24568.2	AF055909	Zea mays	AAC25423.1	AF072908	Glycine max
SEQ ID NO. 2188			AAB80693.1	U69174	Zea mays
CAC12822.1	AJ299252	Nicotiana tabacum	BAA12715.1	D85039	Medicago sativa
AAC24587.1	AF071893	Prunus armeniaca	CAA65500.1	X96723	Oryza sativa
AAF23899.1	AF193803	Oryza sativa	CAA57157.1	X81394	Oryza sativa
BAB16083.1	AB036883	Oryza sativa	BAA90814.1	AP001168	Zea mays
AAF63205.1	AF245119	Mesembryanthemum crystallinum	AAA69507.1	U28376	Cucurbita pepo
CAB96900.1	AJ251250	Catharanthus roseus	AAB49984.1	U90262	Tortula ruralis
CAB96899.1	AJ251249	Catharanthus roseus	AAB70706.1	U82087	Zea mays
BAA78738.1	AB023482	Oryza sativa	CAA07481.1	AJ007366	Vigna radiata
AAF76898.1	AF274033	Atriplex hortensis	AAC49405.1	U08140	Oryza sativa
BAA99376.1	AP002526	Oryza sativa	BAA85396.1	AP000615	Oryza sativa
SEQ ID NO. 2189			AAC05270.1	AF048691	Zea mays
AAF60173.1	AF236068	Elaeis guineensis	BAA12338.1	D84408	Oryza sativa
AAD23407.1	AF112887	Populus x canescens	CAA57156.1	X81393	Marchantia polymorpha
AAG16973.1	AF183903	Petunia x hybrida	BAA81749.1	AB017515	Marchantia polymorpha
AAG16974.1	AF183904	Petunia x hybrida	BAA81751.1	AB017517	Marchantia polymorpha
CAA78483.1	Z14110	Lilium longiflorum	BAA81750.1	AB017516	Marchantia polymorpha
CAA78482.1	Z14109	Brassica napus	BAA81748.1	AB017515	Glycine max
CAA66310.1	X97725	Zea mays	AAB80692.1	U69173	Zea mays
CAA66311.1	X97726	Zea mays	BAA13232.1	D87042	Zea mays
CAA56786.1	X80820	Zea mays	AAA61682.1	L27484	Oryza sativa
AAC49404.1	U58278	Triticum aestivum	AAG46110.1	AC073166	Chlamydomonas eugametos
AAG28460.1	AF195612	Lophopyrum elongatum	CAA89202.1	Z49233	Oryza sativa
			BAA02698.1	D13436	Oryza sativa
			AAF23900.1	AF194413	Oryza sativa

AAF21062.1	AF216527	Dunaliella tertiolecta	AAA19571.1	U10150	Brassica napus
CAA58750.1	X83869	Daucus carota	CAA78301.1	Z12839	Lilium longiflorum
AAA33443.1	L15390	Zea mays	BAA88540.1	AP000969	Oryza sativa
AAK26164.1	AY027885	Cucumis sativus	AAB36130.1	S81594	Vigna radiata
BAA12692.1	D84508	Zea mays	AAC36059.1	AF042840	Oryza sativa
AAB47181.1	S82324	Zea mays	AAA33900.1	L18914	Oryza sativa
BAA12691.1	D84507	Zea mays	AAA34237.1	L20691	Vigna radiata
AAG01179.1	AF289237	Zea mays	CAA78288.1	Z12828	Oryza sativa
BAA22410.1	D38452	Zea mays	AAA32938.1	M27303	Hordeum vulgare
SEQ ID NO. 2191			CAA78287.1	Z12827	Oryza sativa
BAA13032.1	D86180	Pisum sativum	AAC49587.1	U49105	Triticum aestivum
SEQ ID NO. 2192			AAC49586.1	U49104	Triticum aestivum
AAD01600.1	AF016713	Lycopersicon esculentum	AAC49583.1	U48692	Triticum aestivum
CAC07206.1	AJ278966	Brassica napus	AAC49585.1	U49103	Triticum aestivum
AAC32034.1	AF023472	Hordeum vulgare	AAC49584.1	U48693	Triticum aestivum
AAF20002.1	AF213936	Prunus dulcis	AAC49582.1	U48691	Triticum aestivum
AAF07875.1	AF140606	Oryza sativa	AAC49580.1	U48689	Triticum aestivum
BAB19760.1	AB052788	Glycine max	AAC49579.1	U48688	Triticum aestivum
CAA93316.1	Z69370	Cucumis sativus	AAC49578.1	U48242	Triticum aestivum
BAB19757.1	AB052785	Glycine max	AAC36058.1	AF042839	Oryza sativa
BAB19756.1	AB052784	Glycine max	AAA85156.1	U20296	Solanum tuberosum
AAB69642.1	AF000392	Lotus japonicus	AAD10244.1	AF030032	Phaseolus vulgaris
AAD16016.1	AF080545	Nepenthes alata	CAA36644.1	X52398	Medicago sativa
AAD42860.1	AF154930	Prunus dulcis	AAA85155.1	U20294	Solanum tuberosum
SEQ ID NO. 2193			AAB68399.1	U79736	Helianthus annuus
CAA61980.1	X89890	Bidens pilosa	AAA62351.1	U20295	Solanum tuberosum
AAF73157.1	AF150059	Brassica napus	AAA34238.1	L20507	Vigna radiata
BAA87825.1	AP000815	Oryza sativa	AAA85157.1	U20297	Solanum tuberosum
CAA67054.1	X98404	Capsicum annuum	AAA33705.1	M80831	Petunia x hybrida
AAA87347.1	M88307	Brassica juncea	CAA74307.1	Y13974	Zea mays
AAG27432.1	AF295637	Elaeis guineensis	CAA54583.1	X77397	Zea mays
CAA42423.1	X59751	Daucus carota	SEQ ID NO. 2194		
AAG11418.1	AF292108	Prunus avium	BAB32588.1	AB055807	Momordica charantia
AAA92681.1	U13882	Pisum sativum	AAA34180.1	J05094	Lycopersicon peruvianum
AAB46588.1	U83402	Capsicum annuum	AAA34198.1	M59427	Lycopersicon peruvianum
AAA33706.1	M80836	Petunia x hybrida	CAB61327.1	AJ132473	Amaranthus hypochondriacus
AAF65511.1	AF108889	Capsicum annuum	AAA60745.1	J04099	Lycopersicon esculentum
CAA43143.1	X60738	Malus x domestica	CAA47461.1	X67076	Nicotiana tabacum
			CAA78265.1	Z12619	Nicotiana tabacum
			CAA47460.1	X67075	Nicotiana tabacum

AAA34067.1	M74102	Nicotiana sylvestris	AAK30005.1	AY029067	Rosa hybrid cultivar
AAC49603.1	U30861	Solanum tuberosum	AAG53979.1	AF325168	Nicotiana tabacum
BAA02823.1	D13662	Nicotiana glauca X Nicotiana langsdorffii	AAG31141.1	AF305911	Oryza sativa
AAA34199.1	K03290	Lycopersicon esculentum	BAB18104.1	AB042714	Chlamydomonas reinhardtii
AAA34200.1	M13938	Lycopersicon esculentum	BAB18105.1	AB042715	Chlamydomonas reinhardtii
AAA72133.1	L06985	Solanum tuberosum	CAA73067.1	Y12464	Sorghum bicolor
CAA78259.1	Z12611	Solanum tuberosum	CAC09580.1	AJ298992	Fagus sylvatica
AAA69781.1	L06606	Solanum tuberosum	CAA49592.1	X69971	Nicotiana tabacum
CAA48136.1	X67950	Solanum tuberosum	AAF23902.1	AF194415	Oryza sativa
CAA47907.1	X67675	Solanum tuberosum	AAD52659.1	AF177392	Oryza sativa
CAA57677.1	X82187	Zea mays	AAK11734.1	AY027437	Arachis hypogaea
CAA55588.1	X78988	Zea mays	CAA58466.1	X83440	Petunia x hybrida
CAA49593.1	X69972	Zea mays	AAF19402.1	AF203480	Lycopersicon esculentum
AAA33816.1	M17108	Solanum tuberosum	CAA73068.1	Y12465	Sorghum bicolor
CAA57307.1	X81647	Cucurbita maxima	AAF19403.1	AF203481	Lycopersicon esculentum
CAA57203.1	X81447	Cucurbita maxima	CAB61889.1	AJ251330	Oryza sativa
			AAG40580.1	AF216316	Oryza sativa
			AAF61238.1	AF241166	Oryza sativa
SEQ ID NO. 2195			SEQ ID NO. 2196		
AAC32599.1	AF080436	Oryza sativa	AAB32591.2	S74753	Solanum tuberosum
CAC09581.1	AJ298993	Fagus sylvatica			
CAC09568.1	AJ298980	Fagus sylvatica	SEQ ID NO. 2209		
CAA08997.1	AJ010093	Brassica napus	CAA09881.1	AJ011939	Trifolium repens
CAC09569.1	AJ298981	Fagus sylvatica	CAA62228.1	X90695	Medicago sativa
AAF34436.1	AF172282	Oryza sativa	CAA71495.1	Y10469	Spinacia oleracea
CAA08995.1	AJ010091	Brassica napus	AAB41812.1	L36158	Medicago sativa
CAA08758.1	AJ009609	Brassica napus	AAF63024.1	AF244921	Spinacia oleracea
CAA08757.1	AJ009608	Brassica napus	AAD11483.1	U51193	Glycine max
BAA05648.1	D26601	Nicotiana tabacum	CAA62226.1	X90693	Medicago sativa
AAF67262.1	AF165186	Nicotiana tabacum	CAA62227.1	X90694	Medicago sativa
CAA04261.2	AJ000728	Lycopersicon esculentum	BAA77387.1	AB024437	Scutellaria baicalensis
AAD46406.1	AF096250	Lycopersicon esculentum	AAD11484.1	U51194	Glycine max
AAD10056.1	AF110518	Lycopersicon esculentum	BAA07664.1	D42065	Nicotiana tabacum
AAD10057.1	AF110519	Lycopersicon esculentum	BAA07663.1	D42064	Nicotiana tabacum
AAA34002.1	M67449	Glycine max	AAD11481.1	U51191	Glycine max
BAA06731.1	D31964	Nicotiana tabacum	AAD11482.1	U51192	Glycine max
CAA06334.1	AJ005077	Lycopersicon esculentum	AAD37427.1	AF149277	Phaseolus vulgaris
BAB32405.1	AB055514	Nicotiana tabacum	AAB41810.1	L36156	Medicago sativa
AAG40578.1	AF216314	Oryza sativa	AAC98519.1	AF007211	Glycine max
CAC24705.1	AJ302651	Nicotiana tabacum	CAB94692.1	AJ242742	Ipomoea batatas
AAC83393.1	U83625	Zea mays			

CAC21393.1	AJ401276	Zea mays	BAA12737.1	D85186	Gentiana triflora
CAA59485.1	X85228	Triticum aestivum	BAA89008.1	AB027454	Petunia x hybrida
AAB67737.1	L77080	Stylosanthes humilis	AAF61647.1	AF190634	Nicotiana tabacum
AAC49818.1	AF014467	Oryza sativa	CAA59450.1	X85138	Lycopersicon esculentum
CAA46916.1	X66125	Oryza sativa	AAD55985.1	AF165148	Petunia x hybrida
CAA66037.1	X97351	Populus balsamifera subsp.	AAD21086.1	AF127218	Forsythia x intermedia
trichocarpa			AAB48444.1	U82367	Solanum tuberosum
AAA65637.1	L13654	Lycopersicon esculentum	BAA19659.1	AB002818	Perilla frutescens
AAB41811.1	L36157	Medicago sativa	BAA89009.1	AB027455	Petunia x hybrida
AAF65464.2	AF247700	Oryza sativa	AAF17077.1	AF199453	Sorghum bicolor
AA98491.1	L36981	Petroselinum crispum	CAA54614.1	X77464	Manihot esculenta
CAA62225.1	X90692	Medicago sativa	BAA93039.1	AB033758	Citrus unshiu
CAA39486.1	X56011	Triticum aestivum	AAB62270.1	AF006081	Solanum berthaultii
CAB67121.1	Y19023	Lycopersicon esculentum	AAF98390.1	AF287143	Brassica napus
BAA03644.1	D14997	Oryza sativa	CAA54610.1	X77460	Manihot esculenta
CAA50597.1	X71593	Lycopersicon esculentum	BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera
BAA82306.1	AB027752	Nicotiana tabacum	AAB86473.1	AF028237	Ipomoea purpurea
BAA06335.1	D30653	Populus kitakamiensis	AAB81683.1	AF000372	Vitis vinifera
CAB99487.1	AJ276227	Hordeum vulgare	BAB41021.1	AB047094	Vitis vinifera
BAA01950.1	D11337	Vigna angularis	BAB41025.1	AB047096	Vitis vinifera
BAA07241.1	D38051	Populus kitakamiensis	BAB41023.1	AB047096	Vitis vinifera
AAD37430.1	AF149280	Phaseolus vulgaris	BAB41019.1	AB047092	Vitis vinifera
AAG02215.1	AF291667	Pinus sylvestris	AAB81682.1	AF000371	Vitis vinifera
AAA32972.1	L36093	Hordeum vulgare	BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera
CAA37713.1	X53675	Triticum aestivum	SEQ ID NO. 2211		
AAB02554.1	L37790	Stylosanthes humilis	CAA54609.1	X77459	Manihot esculenta
CAA71488.1	Y10462	Spinacia oleracea	CAA54611.1	X77461	Manihot esculenta
CAA62597.1	X91172	Raphanus sativus	CAA54613.1	X77463	Manihot esculenta
SEQ ID NO. 2210			CAA54612.1	X77462	Manihot esculenta
CAA54609.1	X77459	Manihot esculenta	AAK28303.1	AF346431	Nicotiana tabacum
CAA54613.1	X77463	Manihot esculenta	AAB36653.1	U32644	Nicotiana tabacum
CAA54611.1	X77461	Manihot esculenta	CAB56231.1	Y18871	Dortheanthus bellidiformis
CAA54612.1	X77462	Manihot esculenta	CAA56652.1	U32643	Nicotiana tabacum
AAB36653.1	U32644	Nicotiana tabacum	AAK28304.1	AF346432	Nicotiana tabacum
CAB56231.1	Y18871	Dortheanthus bellidiformis	CAA59450.1	X85138	Lycopersicon esculentum
AAK28303.1	AF346431	Nicotiana tabacum	AAF61647.1	AF190634	Nicotiana tabacum
AAB36652.1	U32643	Nicotiana tabacum	BAA89008.1	AB027454	Petunia x hybrida
AAK28304.1	AF346432	Nicotiana tabacum	BAA36423.1	AB013598	Verbena x hybrida
AAD04166.1	AF101972	Phaseolus lunatus	BAA89009.1	AB027455	Petunia x hybrida
BAA83484.1	AB031274	Scutellaria baicalensis	AAD55985.1	AF165148	Petunia x hybrida

BAA93039.1	AB033758	Citrus unshiu	AAK15844.1	AY016276	Paeonia szechuanica
AAF17077.1	AF199453	Sorghum bicolor	AAK15843.1	AY016275	Paeonia suffruticosa subsp. spontanea
AAB48444.1	U82367	Solanum tuberosum	AAK15841.1	AY016273	Paeonia delavayi
AAD21086.1	AF127218	Forsythia x intermedia	AAK15840.1	AY016272	Paeonia delavayi
BAA83484.1	AB031274	Scutellaria baicalensis	AAK15835.1	AY016267	Paeonia lutea
CAA54614.1	X77464	Manihot esculenta	AAK15834.1	AY016266	Paeonia lutea
AAD04166.1	AF101972	Phaseolus lunatus	AAK15832.1	AY016264	Paeonia mairei
AAB86473.1	AF028237	Ipomoea purpurea	AAK15831.1	AY016263	Paeonia mairei
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	AAK15828.1	AY016260	Paeonia japonica
BAA19659.1	AB002818	Perilla frutescens	AAK15827.1	AY016259	Paeonia japonica
BAA36422.1	AB013597	Perilla frutescens	AAK15826.1	AY016258	Paeonia japonica
AAB62270.1	AF006081	Solanum berthaultii	AAK15825.1	AY016257	Paeonia obovata
AAB81683.1	AF000372	Vitis vinifera	AAK15824.1	AY016256	Paeonia obovata
BAB41025.1	AB047098	Vitis vinifera	AAK15822.1	AY016254	Paeonia obovata
BAB41023.1	AB047096	Vitis vinifera	AAK15820.1	AY016250	Paeonia tenuifolia
BAB41021.1	AB047094	Vitis vinifera	AAK15818.1	AY016248	Paeonia anomala
BAB41019.1	AB047092	Vitis vinifera	AAK15837.1	AY016269	Paeonia lutea
AAB81682.1	AF000371	Vitis vinifera	AAK15817.1	AY016247	Paeonia anomala
SEQ ID NO. 2213			AAK15830.1	AY016262	Paeonia mairei
AAA33122.1	M80571	Cucumis sativus	AAK15845.1	AY016277	Paeonia szechuanica
BAB17755.1	AB042401	Cucurbita moschata	AAK15839.1	AY016271	Paeonia delavayi
AAF64066.1	AF251795	Elaeis guineensis	AAK15836.1	AY016268	Paeonia lutea
BAB39689.1	AB049135	Cucurbita moschata	AAK15846.1	AY016278	Paeonia szechuanica
BAB39688.1	AB049134	Cucurbita moschata	AAK15833.1	AY016265	Paeonia lutea
BAB17754.1	AB042400	Cucurbita moschata	AAK15821.1	AY016251	Paeonia tenuifolia
CAA41769.1	X59041	Plastid Pisum sativum	SEQ ID NO. 2214		
CAA56159.1	X79722	Phaseolus vulgaris	AAD10386.1	U72255	Oryza sativa
CAA88913.1	Z49091	Spinacia oleracea	CAB85903.1	AJ251646	Pisum sativum
CAB75874.1	AJ272082	Elaeis guineensis	AAA90953.1	U30323	Triticum aestivum
CAA54559.1	X77370	Spinacia oleracea	BAA89481.1	AB029462	Salix gilgiana
AAD38408.1	AF155815	Chloroplast Oryza sativa	AAB82772.2	AF001523	Musa acuminata
CAB44495.1	AJ242939	Plastid Oryza sativa	CAA49513.1	X69887	Brassica napus
CAB45298.2	AJ242940	Plastid Oryza sativa	AAF08679.1	AF004838	Musa acuminata
AAK15854.1	AY016286	Paeonia californica	CAA82271.1	Z28697	Nicotiana tabacum
AAK15853.1	AY016285	Paeonia californica	AAD10384.1	U72253	Oryza sativa
AAK15852.1	AY016284	Paeonia californica	CAA30261.1	X07280	Nicotiana plumbaginifolia
AAK15851.1	AY016283	Paeonia californica	AAA51643.1	M23120	Nicotiana plumbaginifolia
AAK15849.1	AY016281	Paeonia rockii	AAA87456.1	U22147	Hevea brasiliensis
AAK15848.1	AY016280	Paeonia rockii	AAA34078.1	M63634	Nicotiana plumbaginifolia
AAK15847.1	AY016279	Paeonia rockii			

AAD10385.1	U72254	Oryza sativa	AAC49741.1	U89257	Lycopersicon esculentum
CAB38443.1	AJ133470	Hevea brasiliensis	BAB03248.1	AB037183	Oryza sativa
AAB03501.1	U41323	Glycine max	AAF23899.1	AF193803	Oryza sativa
AAA32939.1	M62907	Hordeum vulgare	AAC29516.1	U77655	Solanum tuberosum
AAD33881.1	AF141654	Nicotiana tabacum	BAA97123.1	AB016265	Nicotiana sylvestris
AAA03617.1	M80604	Lycopersicon esculentum	BAA07322.1	D38124	Nicotiana tabacum
BAA77786.1	AB027431	Oryza sativa	BAA76734.1	AB024575	Nicotiana tabacum
BAA77787.1	AB027432	Oryza sativa	AAD45623.1	AF084185	Brassica napus
CAB91554.1	AJ277900	Vitis vinifera	AAG43549.1	AF211531	Nicotiana tabacum
AAC14399.1	AF030771	Hordeum vulgare	AAG43548.1	AF211530	Nicotiana tabacum
CAB03908.1	AJ000081	Citrus sinensis	AAK01089.1	AF298231	Hordeum vulgare
AAG24921.1	AF311749	Hevea brasiliensis	AAG59618.1	AF239616	Hordeum vulgare
AA333946.1	M37753	Glycine max	SEQ ID NO. 2216		
AA63542.1	M59443	Nicotiana tabacum	BAA33203.1	AB001885	Oryza sativa
AAD28732.1	AF112965	Triticum aestivum	BAA33201.1	AB001883	Oryza sativa
AAD10381.1	U72250	Oryza sativa	BAA33204.1	AB001886	Oryza sativa
CAA57255.1	X81560	Nicotiana tabacum	BAA33202.1	AB001884	Oryza sativa
AAD33880.1	AF141653	Nicotiana tabacum	AAC99310.1	AF052585	Malus x domestica
AAB86541.1	AF030166	Oryza sativa	AAC35496.1	AF052690	Raphanus sativus
AAA63539.1	M60402	Nicotiana tabacum	AAG27547.1	AF269128	Brassica nigra
AAA34053.1	M60464	Nicotiana tabacum	AAG27546.1	AF269126	Brassica nigra
AAD10380.1	U72249	Oryza sativa	AAC99309.1	AF052584	Malus x domestica
AAA63540.1	M60403	Nicotiana tabacum	AAC27695.1	AF016010	Brassica napus
SEQ ID NO. 2215			AAC27696.1	AF016011	Brassica napus
BAA97122.1	AB016264	Nicotiana sylvestris	AAC27694.1	AF016009	Brassica napus
BAA07321.1	D38123	Nicotiana tabacum	BAA33206.1	AB001888	Oryza sativa
AAC50047.1	U89255	Lycopersicon esculentum	AAD22518.1	AF001136	Pinus radiata
BAA07324.1	D38126	Nicotiana tabacum	AAG24863.1	AF300700	Ipomoea nil
AAC62619.1	AF057373	Nicotiana tabacum	BAA33200.1	AB001882	Oryza sativa
CAB96900.1	AJ251250	Catharanthus roseus	SEQ ID NO. 2227		
CAB96899.1	AJ251249	Catharanthus roseus	AAA74447.1	U30896	Vigna unguiculata
BAA87068.1	AB035270	Matricaria chamomilla	SEQ ID NO. 2232		
AAC49740.1	U89256	Lycopersicon esculentum	CAA09457.1	AJ011010	Cicer arietinum
AAB38748.1	U81157	Nicotiana tabacum	CAA06309.1	AJ005042	Cicer arietinum
BAA97124.1	AB016266	Nicotiana sylvestris	CAA59162.1	X84684	Brassica oleracea
BAA07323.1	D38125	Nicotiana tabacum	CAA07236.1	AJ006771	Cicer arietinum
AAG43545.1	AF211527	Nicotiana tabacum	AAC25984.1	AF020390	Lycopersicon esculentum
AAD00708.1	U91857	Stylosanthes hamata	AAB61470.1	AF004812	Mangifera indica
AAF05606.1	AF190770	Oryza sativa			
AAD09248.1	U91982	Stylosanthes hamata			

CAA10175.1	AJ012798	Lycopersicon esculentum	AAF66615.1	AF142596	Nicotiana tabacum
CAA54525.1	X77319	Asparagus officinalis	AAK11566.1	AF318490	Lycopersicon hirsutum
CAA10173.1	AJ012796	Lycopersicon esculentum	AAK11567.1	AF318491	Lycopersicon hirsutum
AAF70822.1	AF154421	Lycopersicon esculentum	CAB51836.1	AJ243961	Oryza sativa
AAF70821.1	AF154420	Lycopersicon esculentum	BAA92836.1	AB032473	Brassica oleracea
AAE67342.1	AF229795	Vigna radiata	SEQ ID NO. 2235		
CAA10174.1	AJ012797	Lycopersicon esculentum	CAB90633.1	AJ277743	Fagus sylvatica
AAE21626.1	AF023847	Lycopersicon esculentum	CAC10358.1	AJ277086	Nicotiana tabacum
BAB21492.1	AB046543	Pyrus pyrifolia	CAC10359.1	AJ277087	Nicotiana tabacum
CAA10128.1	AJ012687	Cicer arietinum	CAC09575.1	AJ298987	Fagus sylvatica
AAF67341.1	AF229794	Vigna radiata	AAD17804.1	AF092431	Lotus japonicus
AAC77377.1	AF064786	Carica papaya	AAC36697.1	AF075579	Mesembryanthemum crystallinum
CAA10064.1	AJ012578	Carica papaya	CAR72341.1	Y11607	Medicago sativa
AAC28739.1	AF079874	Carica papaya	AAC36698.1	AF075580	Mesembryanthemum crystallinum
AAG12249.1	AF184080	Prunus armeniaca	AAD17805.1	AF092432	Lotus japonicus
CAA06310.1	AJ005043	Cicer arietinum	AAG43835.1	AF213455	Zea mays
AAD45349.1	AF159124	Vitis vinifera	AAC36700.1	AF075582	Mesembryanthemum crystallinum
SEQ ID NO. 2233			AAC36699.1	AF075581	Mesembryanthemum crystallinum
AAC61805.1	U28007	Lycopersicon esculentum	AAC26828.1	AF075603	Oryza sativa
AAF91337.1	AF249318	Glycine max	AB93832.1	U81960	Zea mays
AAF91336.1	AF249317	Glycine max	CAB90634.1	AJ277744	Fagus sylvatica
AAG16628.1	AY007545	Brassica napus	AAD11430.1	AF097667	Mesembryanthemum crystallinum
AAC27894.1	AF023164	Zea mays	AAC35951.1	AF079355	Mesembryanthemum crystallinum
BAA94509.1	AB041503	Populus nigra	CAC09576.1	AJ298988	Fagus sylvatica
AAK21965.1	AY028699	Brassica napus	SEQ ID NO. 2237		
AAC27895.1	AF023165	Zea mays	BAA83352.1	AF000391	Oryza sativa
BAA94510.1	AB041504	Populus nigra	BAA90508.1	AP001111	Oryza sativa
AAG03090.1	AC073405	Oryza sativa	BAA90507.1	AP001111	Oryza sativa
BAA78764.1	AB023482	Oryza sativa	BAA94511.1	AB041505	Populus nigra
AAG25966.1	AF302082	Nicotiana tabacum	CAR94437.1	Z70524	Spirodela polyrrhiza
AAF43496.1	AF131222	Lophopyrum elongatum	SEQ ID NO. 2240		
AAK11674.1	AF339747	Lophopyrum elongatum	CAG3101.1	X92204	Petunia x hybrida
AB09771.1	U67422	Zea mays	CAG3102.2	X92205	Petunia x hybrida
CAA97692.1	Z73295	Catharanthus roseus	BAA84803.1	AF000559	Oryza sativa
AAB47421.1	U59316	Lycopersicon esculentum	BAB03447.1	AP002817	Oryza sativa
AAF76313.1	AF220603	Lycopersicon esculentum	BAA92400.1	AF001366	Oryza sativa
CAB51834.1	00069	Oryza sativa	SEQ ID NO. 2241		
AAB47423.1	U59315	Lycopersicon pimpinellifolium			
AAF76306.1	AF220602	Lycopersicon pimpinellifolium			
AAC48914.1	U02271	Lycopersicon pimpinellifolium			

CAA78386.1	Z13996	Petunia x hybrida	CAB40189.1	AJ133638	Avena sativa
CAB43399.1	AJ006292	Antirrhinum majus	BAA81736.1	AB029165	Glycine max
CAA67600.1	X99210	Lycopersicon esculentum	AAK19615.1	AF336282	Gossypium hirsutum
AAE22256.1	AF161711	Pimpinella brachycarpa	AAK19617.1	AF336284	Gossypium hirsutum
CAA64614.1	X95296	Lycopersicon esculentum	BAA81733.2	AB029162	Glycine max
CAA78387.1	Z13997	Petunia x hybrida	CAA67575.1	X99134	Lycopersicon esculentum
BAA88222.1	AB028650	Nicotiana tabacum	CAA78388.1	Z13998	Petunia x hybrida
BAA88221.1	AB028649	Nicotiana tabacum	BAA23339.1	D88619	Oryza sativa
BAA88224.1	AB028652	Nicotiana tabacum	CAA72186.1	Y11351	Oryza sativa
AAB41101.1	U72762	Nicotiana tabacum	CAA72187.1	Y11352	Oryza sativa
CAA67575.1	X99134	Lycopersicon esculentum	CAA72218.1	Y11415	Oryza sativa
BAA88223.1	AB028651	Nicotiana tabacum	AAK19619.1	AF336286	Gossypium hirsutum
CAA66952.1	X98308	Lycopersicon esculentum	CAA65525.1	X96749	Oryza sativa
AAA33500.1	M73028	Zea mays	SEQ ID NO. 2244		
AAG36774.1	AF210616	Zea mays	CAA33903.1	X15894	Sinapis alba
			CAA34459.1	X16436	Sinapis alba
SEQ ID NO. 2242			AAB87573.1	AF034631	Panax ginseng
CAC19439.1	AJ237661	Oryza sativa	BAA25391.1	AB012637	Nicotiana sylvestris
BAB40790.1	AB058642	Lilium hybrid division I	AAA34147.1	M14443	Lycopersicon esculentum
CAA71992.1	Y11105	Pisum sativum	AAA80589.1	U20983	Solanum tuberosum
AAK08983.1	AY026332	Oryza sativa	CAA32526.1	X14341	Plastid Spinacia oleracea
BAA81731.1	AB029160	Glycine max	AAF26741.1	AF220527	Euphorbia esula
BAA81730.1	AB029159	Glycine max	BAA25390.1	AB012637	Nicotiana sylvestris
BAA81732.1	AB029161	Glycine max	AAA80591.1	U21111	Solanum tuberosum
BAA88222.1	AB028650	Nicotiana tabacum	AAA80593.1	U21113	Solanum tuberosum
AAF22256.1	AF161711	Pimpinella brachycarpa	BAA25389.1	AB012637	Nicotiana sylvestris
AAK19618.1	AF336285	Gossypium hirsutum	AAA33396.1	M29334	Lemna gibba
AAK19611.1	AF336278	Gossypium hirsutum	AAA80594.1	U21114	Solanum tuberosum
BAA88224.1	AB028652	Nicotiana tabacum	BAA25392.1	AB012638	Nicotiana sylvestris
CAA78387.1	Z13997	Petunia x hybrida	AAA50310.1	I36064	Prunus persica
BAA96421.1	AB044084	Triticum aestivum	AAB61236.1	AF003127	Mesembryanthemum crystallinum
CAA67600.1	X99210	Lycopersicon esculentum	BAA25388.1	AB012636	Nicotiana sylvestris
CAA67000.1	X98355	Oryza sativa	AAA34148.1	M14444	Lycopersicon esculentum
CAA61021.1	X87690	Hordeum vulgare	BAA25394.1	AB012639	Nicotiana sylvestris
AAE22863.1	AY008692	Hordeum vulgare	CAA99993.1	Z75663	Apium graveolens
AAD31395.1	AF114162	Lolium temulentum	AAB61237.1	AF003128	Mesembryanthemum crystallinum
BAA88221.1	AB028649	Nicotiana tabacum	BAA25396.1	AB012641	Nicotiana sylvestris
BAA88223.1	AB028651	Nicotiana tabacum	AAA80592.1	U21112	Solanum tuberosum
AAB41101.1	U72762	Nicotiana tabacum	AAA18529.1	L07119	Chloroplast Gossypium hirsutum
CAA66952.1	X98308	Lycopersicon esculentum	AAB61238.1	AF003129	Mesembryanthemum crystallinum
CAA64614.1	X95296	Lycopersicon esculentum			



BAA03104.1	D14002	Lactuca sativa	SEQ ID NO. 2250	SEQ ID NO. 2250	Lycopersicon esculentum
BAA25395.1	AB012640	Nicotiana sylvestris	CAB42052.1	AJ242045	Hordeum vulgare
AAA06688.1	U39475	Glycine max	AAD32651.1	AF136942	Oryza sativa
AAA50172.1	U01964	Glycine max	BAB17824.1	AB023819	Hordeum vulgare
CAA41187.1	X58229	Nicotiana tabacum	AAD32650.1	AF136941	Hordeum vulgare
BAA25393.1	AB012638	Nicotiana sylvestris	BAA74583.1	AB011266	Hordeum vulgare
CAA39376.1	X55892	Zea mays	BAA74586.1	AB011269	Hordeum vulgare
AAC25775.1	AF072931	Medicago sativa	BAA74587.1	AB019525	Hordeum vulgare
CAA32900.1	X14794	Zea mays	BAB17826.1	AB046401	Oryza sativa
AAA34055.1	M21397	Nicotiana plumbaginifolia	BAB17823.1	AB023818	Oryza sativa
CAA10284.1	AJ131044	Cicer arietinum	BAB17825.1	AB046401	Oryza sativa
BAA24493.1	AB006081	Fagus crenata	BAA74588.2	AB021746	Oryza sativa
CAA31419.1	X12981	Glycine max	BAA74580.1	AB010086	Hordeum vulgare
CAA32109.1	X13909	Oryza sativa	BAA74585.1	AB011268	Hordeum vulgare
AAB18209.1	U73218	Triticum aestivum	BAA74584.1	AB011267	Hordeum vulgare
AAF89207.1	AF279250	Vigna radiata	SEQ ID NO. 2251	SEQ ID NO. 2251	Nicotiana sylvestris
AAA34056.1	M21398	Nicotiana plumbaginifolia	AAB96830.1	U64823	Nicotiana sylvestris
AAF89206.1	AF279249	Vigna radiata	AAB48944.1	U31932	Lycopersicon esculentum
SEQ ID NO. 2245	SEQ ID NO. 2245	Brassica napus	AAD25160.1	AF014808	Vicia faba
AAB03108.1	U55032	Nepenthes alata	CAA70778.1	Y09591	Lycopersicon esculentum
BAB20972.1	AB045894	Nepenthes alata	AAD25162.1	AF014810	Lycopersicon esculentum
BAB20969.1	AB045891	Nepenthes alata	AAD25161.1	AF014809	Lycopersicon esculentum
CAA39602.1	X56136	Hordeum vulgare	AAF76897.1	AF274032	Atriplex hortensis
BAA06875.1	D32144	Oryza sativa	CAA70969.1	Y09826	Solanum tuberosum
BAA06876.1	D32165	Oryza sativa	AAD16014.1	AF080543	Nepenthes alata
BAA76870.1	AB025359	Helianthus annuus	CAA70968.1	Y09825	Solanum tuberosum
BAB20970.1	AB045892	Nepenthes alata	AAD16015.1	AF080544	Nepenthes alata
AAB03843.1	U61396	Vigna unguiculata	AAF15946.1	AF061436	Vicia faba
BAA96578.1	AP002480	Oryza sativa	AAF15944.1	AF061434	Vicia faba
CAA70340.1	Y09123	Centaurea calcitrapa	AAD16013.1	AF080542	Nepenthes alata
BAB20971.1	AB045893	Nepenthes alata	SEQ ID NO. 2254	SEQ ID NO. 2254	Oryza sativa
BAA19607.1	AB002695	Cucurbita pepo	BAA85398.1	AF000615	Apium graveolens var. dulce
BAA02242.1	D12777	Oryza sativa	AAG43998.1	AF215837	Nicotiana tabacum
BAA96446.1	AB021787	Pyrus pyrifolia	AAF74566.1	AF215852	Solanum tuberosum
BAB20973.1	AB045895	Nepenthes alata	AAF74567.1	AF215853	Zea mays
BAA76427.1	AB024999	Cicer arietinum	AAF74568.1	AF215854	Spinacia oleracea
BAA78908.1	AB028888	Oryza sativa	AAF74565.1	AF215851	Chlorella kessleri
AAB03109.1	U55033	Brassica napus	CAA53192.1	X75440	Chlorella kessleri
BAA22813.1	D26015	Nicotiana tabacum	CAA39036.1	X55349	

CAA68813.1	Y07520	Chlorella kessleri	CAA64789.1	X95542	Cryptomeria japonica
CAB06079.1	Z83829	Picea abies	CAA64793.1	X95546	Metasequoia glyptostroboides
CAB52689.1	AJ132224	Lycopersicon esculentum	CAA64792.1	X95545	Metasequoia glyptostroboides
CAA09419.1	AJ010942	Lycopersicon esculentum	CAA64790.1	X95543	Cryptomeria japonica
CAA47324.1	X66856	Nicotiana tabacum	SEQ ID NO. 2256		
BAB19863.1	AB052884	Oryza sativa	AAA33945.1	J03919	Glycine max
AAD55054.1	AF173655	Beta vulgaris	CAA48297.1	X68215	Pisum sativum
CAB07812.1	Z93775	Vicia faba	CAA48298.1	X68216	Pisum sativum
AAB06594.1	U38651	Medicago truncatula	AAD50278.1	AF169830	Glycine max
BAB19864.1	AB052885	Oryza sativa	AAA33944.1	J03920	Glycine max
AAA79761.1	L08196	Ricinus communis	CAA48300.1	X68218	Pisum sativum
CAB52688.1	AJ132223	Lycopersicon esculentum	CAA48299.1	X68217	Pisum sativum
CAB52690.1	AJ132225	Lycopersicon esculentum	CAB61882.1	AJ249996	Lycopersicon esculentum
CAA04511.1	AJ001061	Vitis vinifera	SEQ ID NO. 2257		
CAA70777.1	Y09590	Vitis vinifera	CAA09852.1	AJ011892	Nicotiana tabacum
BAB19862.1	AB052883	Oryza sativa	CAA71244.1	Y10162	Chenopodium rubrum
AAB82147.1	AF022874	Lycopersicon esculentum	CAA09854.1	AJ011894	Nicotiana tabacum
SEQ ID NO. 2255			CAA61334.1	X88864	Medicago sativa
AAA32989.1	J05233	Brassica napus	CAB40540.1	AJ132929	Medicago sativa
AAK07609.1	AF319771	Brassica napus	CAB51788.1	AJ245415	Lycopersicon esculentum
CAA42478.1	X59808	Raphanus sativus	CAB60836.1	AJ002588	Lycopersicon esculentum
CAA41984.1	X59294	Brassica napus	BAA33153.1	AB008188	Pisum sativum
AAA32988.1	M16860	Brassica napus	CAB60837.1	AJ002589	Lycopersicon esculentum
CAA32692.1	X14555	Brassica napus	CAB61222.1	AJ250397	Lycopersicon esculentum
CAA41985.1	X59295	Brassica napus	CAA09853.1	AJ011893	Antirrhinum majus
CAA40980.1	X57850	Brassica napus	CAB61221.1	AJ250396	Nicotiana tabacum
CAA57633.1	X82121	Amaranthus hypochondriacus	CAB61223.1	AJ250398	Antirrhinum majus
CAA42472.1	X59802	Raphanus sativus	CAB60838.1	AJ002590	Lycopersicon esculentum
AAC61881.1	U64443	Coffea arabica	CAB40541.1	AJ132930	Medicago sativa
AAC61983.1	AF054895	Coffea arabica	CAA09769.1	AJ011776	Chenopodium rubrum
CAA76573.1	Y16976	Coffea arabica	BAA86629.1	AB024987	Oryza sativa
AAK15087.1	AF240004	Sesamum indicum	CAB46642.1	AJ243452	Lycopersicon esculentum
CAA42473.1	X59803	Raphanus sativus	CAA57555.1	X82035	Oryza sativa
AAD32713.1	AF152003	Fagopyrum esculentum	CAA63541.1	X92965	Lycopersicon esculentum
CAA35631.1	X17637	Avena sativa	CAA63542.1	X92966	Oryza sativa
CAA42475.1	X59805	Raphanus sativus	CAA63543.1	X92967	Nicotiana tabacum
CAA54152.1	X76737	Avena sativa	CAB46643.1	AJ243453	Nicotiana tabacum
AAA33374.1	M28832	Helianthus annuus	CAB46641.1	AJ243451	Nicotiana tabacum
CAA42477.1	X59807	Raphanus sativus	CAA57556.1	X82036	Lycopersicon esculentum
AAF73008.1	AF262999	Ricinus communis	483		

D50869	BAA09465.1	Glycine max	SEQ ID NO. 2260	Nicotiana tabacum
U50064	RAAC50013.1	Zea mays	BAA05648.1	D26601
U10076	AAA20236.1	Zea mays	CAA08997.1	AJ010093
AP002481	BAA96590.1	Oryza sativa	CAA08995.1	AJ010091
AB024986	BAA86628.1	Oryza sativa	AAF34436.1	AF172282
AJ133722	CAB77269.1	Pisum sativum	CAA08758.1	AJ009609
U10077	AAA20237.1	Zea mays	CAA08757.1	AJ009608
X68741	CAA48675.1	Medicago sativa	AAC83393.1	U83625
X78504	CRA55272.1	Medicago sativa	AAG53979.1	AF325168
AJ243454	CAB46644.1	Lycopersicon esculentum	AAG40578.1	AF216314
X62819	CAA44631.1	Daucus carota	CAA04261.2	AJ000728
D50871	BAA09467.1	Glycine max	AAF67262.1	AF165186
D89636	BAA20426.1	Nicotiana tabacum	BAB32405.1	AB055514
X92964	CAA633540.1	Nicotiana tabacum	AAF19403.1	AF203481
D50870	BAA09466.1	Glycine max	AAF19402.1	AF203480
D86385	BAA20410.1	Catharanthus roseus	CAC24705.1	AJ302651
AJ243455	CAB46645.1	Lycopersicon esculentum	BAA06731.1	D31964
Y10161	CAA71243.1	Chenopodium rubrum	AAG31141.1	AF305911
D82349	BAA11560.1	Adiantum capillus-veneris	AAF19401.1	AF203479
			AAD46406.1	AF096250
			BAA05649.1	D26602
			AAD23582.1	AF128443
			CAA06334.1	AJ005077
			AAD10057.1	AF110519
			AAC78558.1	AF030879
			AAD10056.1	AF110518
			AAG31142.1	AF305912
			AAC24961.1	AF009337
			AAA61682.1	L27484
			AAC25423.1	AF072908
			CAA71142.1	Y10036
			BAA83689.1	AB011968
			CAA46554.1	X65604
			CAA46556.1	X65606
			CAA65500.1	X96723
			AAF05112.1	AF158091
			AAD17800.1	AF090835
			CAA07813.1	AJ007990
				</

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AA016138.1	AF096298	Nicotiana tabacum	BAA84072.1	AB028152	Torenia hybrida
AAF61864.1	AF193771	Nicotiana tabacum	BAA74466.1	AB022733	Glycyrrhiza echinata
BAA87069.1	AB035271	Matricaria chamomilla	BAA22423.1	AB001380	Glycyrrhiza echinata
AAF61863.1	AF193770	Nicotiana tabacum	BAA22894.1	AB006790	Petunia x hybrida
SEQ ID NO. 2276			AAC32274.1	AF081575	Petunia x hybrida
BAA7043.1	AB035183	Ipomoea batatas	CAB56743.1	AJ249801	Cicer arietinum
CAB11466.1	Z98758	Dianthus caryophyllus	BAA84071.1	AB028151	Antirrhinum majus
CAB06429.1	Z84385	Dianthus caryophyllus	SEQ ID NO. 2279		
CAB06427.1	Z84383	Dianthus caryophyllus	AAD16139.1	AF096299	Nicotiana tabacum
CAB06430.1	Z84386	Dianthus caryophyllus	AAC37515.1	L4134	Cucumis sativus
CAB06538.1	Z84571	Dianthus caryophyllus	CAA88326.1	Z48429	Avena fatua
CAB06428.1	Z84384	Dianthus caryophyllus	AAC49527.1	U48831	Petroselinum crispum
SEQ ID NO. 2277			AAD16138.1	AF096298	Nicotiana tabacum
CAA67291.1	X98739	Pisum sativum	AAC49529.1	U58540	Petroselinum crispum
CAA67290.1	X98738	Pisum sativum	CAA88331.1	Z48431	Avena fatua
SEQ ID NO. 2278			BAA77358.1	AB020023	Nicotiana tabacum
BAA22422.1	AB001379	Glycyrrhiza echinata	AAC49528.1	U56834	Petroselinum crispum
BAA74465.1	AB022732	Glycyrrhiza echinata	CAB66338.1	AJ279697	Betula pendula
BAA93634.1	AB025016	Lotus japonicus	AAD27591.1	AF121354	Petroselinum crispum
CAB43505.1	AJ239051	Cicer arietinum	AAF61864.1	AF193771	Nicotiana tabacum
CAB41490.1	AJ238439	Cicer arietinum	AAF61863.1	AF193770	Nicotiana tabacum
CAA10067.1	AJ012581	Cicer arietinum	SEQ ID NO. 2280		
CAA04117.1	AJ000478	Helianthus tuberosus	BAB19757.1	AB052785	Glycine max
CAA04116.1	AJ000477	Helianthus tuberosus	BAB19756.1	AB052784	Glycine max
AAB94590.1	AF022461	Glycine max	BAB19760.1	AB052788	Glycine max
CAB56742.1	AJ249800	Cicer arietinum	AAC32034.1	AF023472	Hordeum vulgare
AAD56282.1	AF155332	Petunia x hybrida	AAD01600.1	AF016713	Lycopersicon esculentum
AAG09208.1	AF175278	Pisum sativum	CAA93316.1	Z69370	Cucumis sativus
AAC49188.2	U29333	Pisum sativum	AAF20002.1	AF213936	Prunus dulcis
BAA12159.1	D83968	Glycine max	AAF07875.1	AF140606	Oryza sativa
AAC39454.1	AF014802	Eschscholzia californica	CAC07206.1	AJ278966	Brassica napus
CAA65580.1	X96784	Nicotiana tabacum	AAB69642.1	AF000392	Lotus japonicus
BAA13076.1	D86351	Glycine max	AAD16016.1	AF080545	Nepenthes alata
AAA32913.1	M32885	Persea americana	AAD42860.1	AF154930	Prunus dulcis
AAG44132.1	AF218296	Pisum sativum	SEQ ID NO. 2282		
CAA64635.1	X95342	Nicotiana tabacum	CAA56851.1	X80888	Chlamydomonas reinhardtii
AAB94587.1	AF022458	Glycine max	CAA55398.1	X78821	Chlamydomonas reinhardtii
AAD38930.1	AF135485	Glycine max	CAA44209.1	X62335	Chlamydomonas reinhardtii

AAC49358.1	U35831	Pisum sativum	SEQ ID NO. 2290	CAA36396.1	X52148	Pisum sativum
CAA5390.1	X76269	Pisum sativum		AAA34075.1	M14417	Nicotiana tabacum
CAA35826.1	X51462	Spinacia oleracea		AAA33780.1	L26923	Pinus sylvestris
CAA35827.1	X51463	Spinacia oleracea		CAA33455.1	X15408	Zea mays
CAR06736.1	AJ005841	Oryza sativa		AAA33464.1	M18976	Zea mays
CAA06735.1	AJ005840	Triticum aestivum		AAA34076.1	M14418	Nicotiana tabacum
AAB52409.1	U76831	Brassica napus		AAA84543.1	M55147	Chloroplast Pisum sativum
AAD45358.1	AF160870	Brassica napus		BAA85402.1	AP000615	Oryza sativa
CAA41415.1	X58527	Nicotiana tabacum		AAA86855.1	L27668	Chloroplast Chlamydomonas reinhardtii
AAC32111.1	AF051206	Picea mariana		AAB82133.1	AF022730	Oryza sativa
CAA94534.1	Z70677	Ricinus communis		BAA94304.1	AB035312	Chlamydomonas sp. W80
BAA05546.1	D26547	Oryza sativa		AAB66887.1	AF010582	Oryza sativa
AAB51522.1	U92541	Oryza sativa		AAG23799.1	AF260733	Cucurbita pepo
AAF88067.1	AF286593	Triticum aestivum		CAA06030.1	AJ003783	Marsilea quadrifolia
BAA04864.1	D21836	Oryza sativa		AAA33352.1	L26924	Ginkgo biloba
BAA13524.1	D87984	Fagopyrum esculentum		AAA33779.1	L07501	Pinus sylvestris
CAA05081.1	AJ001903	Triticum turgidum subsp. durum		AAD10215.1	L32560	Chloroplast Pinus sylvestris
BAB20886.1	AB053294	Oryza sativa		AAD10214.1	L32561	Chloroplast Pinus sylvestris
CAA56850.1	X80887	Chlamydomonas reinhardtii		CAA55116.1	X78307	Craterostigma plantagineum
CAA55399.1	X78822	Chlamydomonas reinhardtii		AAA89207.1	L26922	Taxus baccata
AAC19392.1	AF069314	Mesembryanthemum crystallinum		CAA51071.1	X72381	Physcomitrella patens
CAA77847.1	Z11803	Nicotiana tabacum		CAA04942.1	AJ001706	Pinus sylvestris
BAA25681.1	AB010434	Brassica rapa		CAB39974.1	AJ133422	Nicotiana tabacum
AAB53694.1	U59379	Brassica napus		AAA33031.1	M29956	Mesembryanthemum crystallinum
AAG35777.1	AF273844	Brassica oleracea var.		AAA33033.1	J05223	Mesembryanthemum crystallinum
albolabra				CAA42901.1	X60343	Hordeum vulgare
AAD33596.1	AF133127	Hevea brasiliensis		AAA82047.1	U31676	Oryza sativa
AAD49232.1	AF159387	Lolium perenne		AAA87579.1	U45856	Zea mays
AAD56954.1	AF186240	Secale cereale		AAA03442.1	U02886	Atriplex nummularia
BAB39913.1	AP002912	Oryza sativa		CAA53269.1	X75597	Atriplex nummularia
AAD49234.1	AF159389	Phalaris coerulescens		AAAB59010.1	U96623	Selaginella lepidophylla
AAD49233.1	AF159388	Phalaris coerulescens		CAA42904.1	X60346	Petunia x hybrida
AAD49230.1	AF159385	Hordeum bulbosum		CAA42905.1	X60347	Magnolia liliiflora
				CAA42103.1	X59517	Antirrhinum majus
SEQ ID NO. 2283				CAA51676.1	X73151	Zea mays
BAA85440.1	AP000616	Oryza sativa		AAA87580.1	U45857	Zea mays
CAB53493.1	AJ245900	Oryza sativa		CAA51675.1	X73150	Pisum sativum
				AAA87880.1	U45858	Zea mays
SEQ ID NO. 2285				AAA87578.1	U45855	Zea mays
AAD03693.1	AF084554	Brassica napus				

AAA33667.1	L07500	Pisum sativum	BAA03763.1	D16247	Nicotiana sylvestris
SEQ ID NO. 2294			AAF40306.1	AF156667	Vigna radiata
CAA71992.1	Y11105	Pisum sativum	CAA68193.1	X99937	Spinacia oleracea
BAB40790.1	AB058642	Lilium hybrid division I	AAD20980.1	AF079782	Zea mays
AAK08983.1	AY026332	Oryza sativa	BAA95705.1	AB042644	Oryza sativa
CAA64615.1	X95297	Lycopersicon esculentum	BAA95704.1	AB042643	Oryza sativa
BAA81730.1	AB029159	Glycine max	SEQ ID NO. 2298		
CAA67600.1	X99210	Lycopersicon esculentum	CAA44216.1	X62343	Nicotiana tabacum
BAA81731.1	AB029160	Glycine max	BAA03099.1	D13991	Aralia cordata
AAF22256.1	AF161711	Pimpinella brachycarpa	CAA79622.1	Z19568	Populus deltoides
AAK19615.1	AF336282	Gossypium hirsutum	CAC07423.1	AJ295837	Populus balsamifera subsp.
CAA78388.1	Z13998	Petunia x hybrida	trichocarpa		
BAA88221.1	AB028649	Nicotiana tabacum	AAF43140.1	AF217957	Populus tremuloides
BAA88224.1	AB028652	Nicotiana tabacum	CAA44217.1	X62344	Nicotiana tabacum
BAA81732.1	AB029161	Glycine max	CAA79625.1	Z19573	Medicago sativa
CAA64614.1	X95296	Lycopersicon esculentum	AAC35845.1	AF083332	Medicago sativa
AAK19617.1	AF336284	Gossypium hirsutum	AAC07987.1	AF038561	Eucalyptus globulus
AAK19611.1	AF336278	Gossypium hirsutum	CAA46585.1	X65631	Eucalyptus gunnii
BAA23337.1	D88617	Oryza sativa	AAG15553.1	AF294793	Eucalyptus saligna
CAA78387.1	Z13997	Petunia x hybrida	CAA53211.1	X75480	Eucalyptus gunnii
CAC19439.1	AJ237661	Oryza sativa	AAB70908.1	AF010290	Iolium perenne
AAK19619.1	AF336286	Gossypium hirsutum	CAA74070.1	Y13733	Zea mays
CAB40189.1	AJ133638	Avena sativa	CAA06687.1	AJ005702	Zea mays
BAA96421.1	AB044084	Triticum aestivum	CAA13177.1	AJ231135	Saccharum officinarum
BAA88223.1	AB028651	Nicotiana tabacum	BAA19487.1	D86590	Zinnia elegans
AAB41101.1	U72762	Nicotiana tabacum	CAA51226.1	X72675	Picea abies
CAA61021.1	X87690	Hordeum vulgare	CAA05097.1	AJ001926	Picea abies
AAG22863.1	AY008692	Hordeum vulgare	CAA05096.1	AJ001925	Picea abies
AAD31395.1	AF114162	Lolium temulentum	CAA05095.1	AJ001924	Picea abies
BAA88222.1	AB028650	Nicotiana tabacum	AAB38774.1	U62394	Pinus radiata
CAA50221.1	X70876	Hordeum vulgare	AAC31166.1	AF060491	Pinus radiata
CAA50222.1	X70877	Hordeum vulgare	CAA86073.1	Z37992	Pinus taeda
CAA50224.1	X70879	Hordeum vulgare	CAA86072.1	Z37991	Pinus taeda
CAA72218.1	Y11415	Oryza sativa	BAA04046.1	D16624	Eucalyptus botryoides
AAG28526.1	AF198499	Nicotiana tabacum	AAD10327.1	U63534	Fragaria x ananassa
BAA81736.1	AB029165	Glycine max	AAK28509.1	AF320110	Fragaria x ananassa
CAA78386.1	Z13996	Petunia x hybrida	AAC35846.1	U79770	Mesembryanthemum crystallinum
SEQ ID NO. 2296			AAK35846.1	AF083333	Medicago sativa
AAF75791.1	AF271892	Pisum sativum	AAA74882.1	L36823	Stylosanthes humilis
			AAF23409.1	AF207552	Brassica napus

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CAB46350.1	Y18311	Solanum tuberosum	CAB46228.1	Y18055	Arachis hypogaea
SEQ ID NO. 2303			AAF21062.1	AF216527	Dunaliella tertiolecta
AAG28503.1	AF196966	Citrus sinensis	CAA89202.1	Z49233	Chlamydomonas eugametos
AAF18584.1	AF118132	Spinacia oleracea	AAF23900.1	AF194413	Oryza sativa
AAF18585.1	AF118133	Nicotiana tabacum	AAF23901.2	AF194414	Oryza sativa
AAF14186.1	AF106068	Solanum tuberosum	AAC78558.1	AF030879	Solanum tuberosum
AAG35735.1	AF208543	Lycopersicon esculentum	CAA58750.1	X83869	Daucus carota
CAA63966.1	X94302	Solanum tuberosum	AAB47181.1	S82324	Zea mays
			BAA22410.1	D38452	Zea mays
			BAA12691.1	D84507	Zea mays
			BAA12692.1	D84508	Zea mays
SEQ ID NO. 2304			AAG01179.1	AF289237	Zea mays
AAB88537.1	AF035944	Fragaria x ananassa	AAC24961.1	AF009337	Tradescantia virginiana
BAA81750.1	AB017516	Marchantia polymorpha	BAA90814.1	AP001168	Oryza sativa
BAA81751.1	AB017517	Marchantia polymorpha	AAC32116.1	AF051211	Picea mariana
BAA81749.1	AB017515	Marchantia polymorpha	AAF06970.1	AF162662	Kalanchoe fedtschenkoi
BAA81748.1	AB017515	Marchantia polymorpha	AAF06969.1	AF162661	Kalanchoe fedtschenkoi
AAD17800.1	AF090835	Mesembryanthemum crystallinum			
BAA12715.1	D85039	Zea mays	SEQ ID NO. 2305		
AAB70706.1	U82087	Tortula ruralis	AAB05871.2	U63784	Catharanthus roseus
AAB49984.1	U90262	Cucurbita pepo	CAB65911.1	AJ249831	Lemna minor
AAC49405.1	U08140	Vigna radiata	AAF18999.1	AF212155	Allium cepa
CAA57157.1	X81394	Oryza sativa	AAC26855.1	AF069951	Enteromorpha intestinalis
AAA69507.1	U28376	Zea mays	AAC49896.1	AF027727	Chlamydomonas reinhardtii
CAA07481.1	AJ007366	Zea mays	AAD02069.1	AF036939	Chlamydomonas reinhardtii
BAA13232.1	D87042	Zea mays			
BAA12338.1	D84408	Zea mays	SEQ ID NO. 2313		
AAB80693.1	U69174	Glycine max	CAA73067.1	Y12464	Sorghum bicolor
AAC25423.1	AF072908	Nicotiana tabacum	CAA73068.1	Y12465	Sorghum bicolor
AAD28192.2	AF115406	Solanum tuberosum	AAB62693.1	AF004947	Oryza sativa
BAA13440.1	D87707	Ipomoea batatas	AAF22219.1	AF141378	Zea mays
CAA65500.1	X96723	Medicago sativa	BAA83688.1	AB011967	Oryza sativa
AAA61682.1	L27484	Zea mays	BAA34675.1	AB011670	Triticum aestivum
AAA33443.1	L15390	Zea mays	BAA83689.1	AB011968	Oryza sativa
BAA85396.1	AF000615	Oryza sativa	BAA96628.1	AP002482	Oryza sativa
AAC05270.1	AF048691	Oryza sativa	BAA05649.1	D26602	Nicotiana tabacum
CAA39936.1	X56599	Daucus carota	AAD23582.1	AF128443	Glycine max
CAA57156.1	X81393	Oryza sativa	CAA71142.1	Y10036	Cucumis sativus
AAB80692.1	U69173	Glycine max	CAA57898.1	X82548	Hordeum vulgare
BAA02698.1	D13436	Oryza sativa	AAC99329.1	AF062479	Oryza sativa
AAG46110.1	AC073166	Oryza sativa	CAA65244.1	X95997	Solanum tuberosum
AAK26164.1	AY027885	Cucumis sativus			

AAB05457.1	U55768	Oryza sativa	AAC13252.1	AF022012	Lycopersicon esculentum
CAA07813.1	AJ007990	Hordeum vulgare	AAC13262.1	AF022022	Lycopersicon esculentum
CAR46556.1	X65606	Hordeum vulgare	AAC13253.1	AF022013	Lycopersicon esculentum
CAR46554.1	X65604	Hordeum vulgare	SEQ ID NO. 2315		
CAA89202.1	Z49233	Chlamydomonas eugametos	BAB19880.1	AB052887	Oryza sativa
AAD00239.1	U73938	Nicotiana tabacum	AAF12877.1	AF205377	Chlamydomonas reinhardtii
AAB68962.1	I38855	Glycine max	AAF27916.1	AF220199	Pinus taeda
AAF21062.1	AF216527	Dunaliella tertiolecta	BAB17626.1	AB033537	Oryza sativa
AAB58348.1	U29095	Triticum aestivum	SEQ ID NO. 2316		
AAD00240.1	U73939	Nicotiana tabacum	AAD00708.1	U91857	Stylosanthes hamata
BAA13608.1	D88399	Oryza sativa	AAC49741.1	U89257	Lycopersicon esculentum
AAG60195.1	AC084763	Oryza sativa	BAB03248.1	AB037183	Oryza sativa
CAA39936.1	X56599	Daucus carota	BAA97123.1	AB016265	Nicotiana sylvestris
BAA19573.1	AB002109	Oryza sativa	AAC29516.1	U77655	Solanum tuberosum
CAA06503.1	AJ005373	Craterostigma plantagineum	BAA76734.1	AB024575	Nicotiana tabacum
BAA13440.1	D87707	Ipomoea batatas	AAB38748.1	U81157	Nicotiana tabacum
AAB88537.1	AF035944	Fragaria x ananassa	BAA97124.1	AB016266	Nicotiana sylvestris
SEQ ID NO. 2314			SEQ ID NO. 2322		
AAD32146.1	AF123508	Nicotiana tabacum	AAA33376.1	L36129	Helianthus annuus
AAD32147.1	AF123509	Nicotiana tabacum	BAA07108.1	D37870	Spinacia oleracea
BAA85821.1	AB026822	Cucumis sativus	BAA04864.1	D21836	Oryza sativa
AAD32145.1	AF123507	Nicotiana tabacum	BAA05546.1	D26547	Oryza sativa
AAD32144.1	AF123506	Nicotiana tabacum	AAB51522.1	U92541	Oryza sativa
CAA48297.1	X68215	Pisum sativum	BAA36283.1	D85751	Oryza sativa
AAD32142.1	AF123504	Nicotiana tabacum	BAA37092.1	AB009592	Oryza sativa
BAA85822.1	AB026823	Cucumis sativus	CAA06835.1	AJ006055	Zea mays
CAA48298.1	X68216	Pisum sativum	SEQ ID NO. 2326		
AAD32143.1	AF123505	Nicotiana tabacum	AAA83439.1	U16123	Zea mays
AAC13260.1	AF022020	Lycopersicon esculentum	AAA50305.1	L29099	Solanum tuberosum
AAC13258.1	AF022018	Lycopersicon esculentum	AAB48484.1	U87849	Capsicum annuum
BAA85820.1	AB026821	Cucumis sativus	BAA01954.1	D11350	Lycopersicon esculentum
CAA48300.1	X68218	Pisum sativum	CAA47636.1	X67163	Daucus carota
AAC13261.1	AF022021	Lycopersicon esculentum	SEQ ID NO. 2327		
AAC13255.1	AF022015	Lycopersicon esculentum	AAD27878.1	AF139466	Vigna radiata
AAC13257.1	AF022017	Lycopersicon esculentum	AAC14566.1	AF058796	Oryza sativa
BAA78739.1	AB023482	Oryza sativa	CAA90681.1	Z50801	Zea mays
AAC13259.1	AF022019	Lycopersicon esculentum			
BAA95840.1	AF002070	Oryza sativa			
CAB61882.1	AJ249996	Lycopersicon esculentum			
AAC13254.1	AF022014	Lycopersicon esculentum			

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SEQ ID NO.	Accession	Species	Accession	Species
U51192	AAD11482.1	Glycine max	AB025002	Cicer arietinum
AB027752	BAA82306.1	Nicotiana tabacum	AU066535	Chlamydomonas sp. HS-5
D11102	BAA01877.1	Populus kitakamiensis	Y18576	Flaveria trinervia
D30653	BAA06335.1	Populus kitakamiensis		
AF145350	AAD37376.1	Glycine max		
X97348	CAA66034.1	Populus balsamifera subsp.		
			SEQ ID NO.	
I36156	AAB41810.1	Medicago sativa	2333	
AF014468	AAC49819.1	Oryza sativa	X98308	Lycopersicon esculentum
U51191	AAD11481.1	Glycine max	Z13997	Petunia x hybrida
AF002482	BAA96643.1	Oryza sativa	Z13996	Petunia x hybrida
			X99134	Lycopersicon esculentum
			AJ006292	Antirrhinum majus
			AB028650	Nicotiana tabacum
			AB028652	Nicotiana tabacum
			AB028649	Nicotiana tabacum
			U72762	Nicotiana tabacum
			AB028651	Nicotiana tabacum
			X95296	Lycopersicon esculentum
			AF210616	Zea mays
			M73028	Zea mays
			X99210	Lycopersicon esculentum
			AF161711	Pimpinella brachycarpa
			SEQ ID NO.	
			2334	
			U90262	Cucurbita pepo
			AJ007366	Zea mays
			U82087	Tortula ruralis
			AP000615	Oryza sativa
			X81393	Oryza sativa
			AF048691	Oryza sativa
			U08140	Vigna radiata
			AB017515	Marchantia polymorpha
			AB017516	Marchantia polymorpha
			AB017515	Marchantia polymorpha
			D87042	Zea mays
			L15390	Zea mays
			AB017517	Marchantia polymorpha
			D84408	Zea mays
			U69173	Glycine max
			AF072908	Nicotiana tabacum
			U69174	Glycine max
			X96723	Medicago sativa
			AF090835	Mesembryanthemum crystallinum
			SEQ ID NO.	
			2335	
			U90262	Cucurbita pepo
			AJ007366	Zea mays
			U82087	Tortula ruralis
			AP000615	Oryza sativa
			X81393	Oryza sativa
			AF048691	Oryza sativa
			U08140	Vigna radiata
			AB017515	Marchantia polymorpha
			AB017516	Marchantia polymorpha
			AB017515	Marchantia polymorpha
			D87042	Zea mays
			L15390	Zea mays
			AB017517	Marchantia polymorpha
			D84408	Zea mays
			U69173	Glycine max
			AF072908	Nicotiana tabacum
			U69174	Glycine max
			X96723	Medicago sativa
			AF090835	Mesembryanthemum crystallinum
			SEQ ID NO.	
			2336	
			U90262	Cucurbita pepo
			AJ007366	Zea mays
			U82087	Tortula ruralis
			AP000615	Oryza sativa
			X81393	Oryza sativa
			AF048691	Oryza sativa
			U08140	Vigna radiata
			AB017515	Marchantia polymorpha
			AB017516	Marchantia polymorpha
			AB017515	Marchantia polymorpha
			D87042	Zea mays
			L15390	Zea mays
			AB017517	Marchantia polymorpha
			D84408	Zea mays
			U69173	Glycine max
			AF072908	Nicotiana tabacum
			U69174	Glycine max
			X96723	Medicago sativa

BAA12715.1	D85039	Zea mays	CAA55516.1	X78900	Beta vulgaris
AAA61682.1	L27484	Zea mays	CAA65541.1	X96766	Pisum sativum
CAA57157.1	X81394	Oryza sativa	AAC21562.1	AF068260	Ipomoea batatas
AAA69507.1	U28376	Zea mays	CAB52196.1	AJ252316	Ipomoea batatas
AAD28192.2	AF115406	Solanum tuberosum	CAA79980.1	Z21969	Triticum aestivum
BAA13440.1	D87707	Ipomoea batatas	CAA43490.1	X61187	Solanum tuberosum
CAA39936.1	X56599	Daucus carota	AAK27719.1	AF356003	Cicer arietinum
AG46110.1	D073166	Oryza sativa	CAB55495.1	AJ249256	Ipomoea batatas
BAA02698.1	D13436	Oryza sativa	AAB91468.1	AF032473	Citrullus lanatus
AAK26164.1	AY027885	Cucumis sativus	CAA47626.1	X67151	Hordeum vulgare
AAB88537.1	AF035944	Fragaria x ananassa	BAA23490.1	D50317	Oryza sativa
AAF21062.1	AF216527	Dunaliella tertiolecta	AAC49943.1	U85497	Lycopersicon esculentum
CAA89202.1	Z49233	Chlamydomonas eugametos	AAC49729.1	U66876	Hordeum vulgare
AAF23900.1	AF194413	Oryza sativa	CAB55496.1	AJ249257	Ipomoea batatas
AAF23901.2	AF194414	Oryza sativa	CAA32533.1	X14350	Triticum aestivum
AAC78558.1	AF030879	Solanum tuberosum	AAK27727.1	AY028314	Oryza sativa
AAC32116.1	AF051211	Picea mariana	AAK27685.1	AF347698	Brassica rapa subsp. pekinensis
CAB46228.1	Y18055	Arachis hypogaea	CAA66227.1	Z38111	Zea mays
CAA58750.1	X83869	Daucus carota	AAB94012.1	AF010283	Sorghum bicolor
BAA12691.1	D84507	Zea mays	AAB24191.2	S48563	Zea mays
AAB47181.1	S82324	Zea mays	AAB38781.1	U66041	Oryza sativa
BAA22410.1	D38452	Zea mays	CAA69978.1	Y08728	Pisum sativum
BAA12692.1	D84508	Zea mays	CAB51610.1	AJ245392	Ipomoea batatas
AAG01179.1	AF289237	Tradescantia virginiana	CAA65540.1	X96765	Pisum sativum
AAC24961.1	AF009337	Oryza sativa	CAB89863.1	AJ271162	Brassica napus
BAA90814.1	AP001168	Lilium longiflorum	CAA65539.1	X96764	Pisum sativum
AAC49008.1	U24188	Nicotiana tabacum	CAA54259.1	X76940	Vicia faba
AAD52098.1	U70923		CAA54260.1	X76941	Vicia faba
			CAB01911.1	Z79635	Ipomoea batatas
			AAB91466.1	AF032471	Citrullus lanatus
			AAK27721.1	AF356005	Cicer arietinum
SEQ ID NO. 2337					
AAD56042.1	AF184598	Citrus unshiu	SEQ ID NO. 2339		
AAC49941.1	U88089	Lycopersicon esculentum	CAA55641.1	X79008	Nicotiana tabacum
AAB91467.1	AF032472	Citrullus lanatus	CAA55642.1	X79009	Nicotiana tabacum
CAA52917.1	X74982	Solanum tuberosum	CAA43513.1	X61205	Nicotiana plumbaginifolia
AAB91463.1	AF030383	Cucumis melo	CAA55738.1	X79137	Nicotiana tabacum
AAF66436.1	AF249917	Perilla frutescens	CAA55739.1	X79138	Nicotiana tabacum
AAB91464.1	AF030384	Cucumis melo	CAA55742.1	X79141	Nicotiana tabacum
AAD56405.1	AF184345	Lycopersicon hirsutum	CAA55737.1	X79136	Nicotiana tabacum
AAB40723.1	U81033	Lycopersicon esculentum	CAA55736.1	X79135	Nicotiana tabacum
AAB40724.1	U81034	Lycopersicon esculentum			
AAC49942.1	U85496	Lycopersicon esculentum			

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BAA81732.1	AB029161	Glycine max	CAA10608.1	AJ132228	Ricinus communis
AAK19616.1	AF336283	Gossypium hirsutum	SEQ ID NO. 2348		
AAK19611.1	AF336278	Gossypium hirsutum	AAF36491.1	AF129479	Hordeum vulgare
AAK19617.1	AF336284	Gossypium hirsutum	BAB32443.1	AB055630	Phragmites australis
AAK19615.1	AF336282	Gossypium hirsutum	BAB32444.1	AB055631	Phragmites australis
CAB433399.1	AJ006292	Antirrhinum majus	BAB32445.1	AB055632	Phragmites australis
CAA72185.1	Y11350	Oryza sativa	BAB32442.1	AB055629	Phragmites australis
AAF22256.1	AF161711	Pimpinella brachycarpa	AAF36497.1	AF129485	Oryza sativa
AAG13574.1	AC037425	Oryza sativa	AAF36496.1	AF129484	Hordeum vulgare
BAA81731.1	AB029160	Glycine max	AAF36492.1	AF129480	Hordeum vulgare
BAA81730.1	AB029159	Glycine max	CAC15061.1	AJ300161	Hordeum vulgare
CAA72186.1	Y11351	Oryza sativa			
CAA67600.1	X99210	Lycopersicon esculentum	SEQ ID NO. 2349		
CAA75509.1	Y15219	Oryza sativa subsp. indica	AAF40430.1	AF234652	Mesembryanthemum crystallinum
CAA78387.1	Z13997	Petunia x hybrida	AAC04324.1	U73937	Nicotiana tabacum
BAA81736.1	AB029165	Glycine max	BAA19553.1	D64036	Oryza sativa
AAK19618.1	AF336285	Gossypium hirsutum	AAA33479.1	M60526	Zea mays
AAK72217.1	Y11414	Oryza sativa	AAG01534.1	AF289467	Nicotiana tabacum
AAA33500.1	M73028	Zea mays	CAA66233.1	X97637	Antirrhinum majus
AAG36774.1	AF210616	Zea mays	CAA76700.1	Y17225	Lycopersicon esculentum
BAA88222.1	AB028650	Nicotiana tabacum	CAC15504.1	AJ297917	Lycopersicon esculentum
BAA81733.2	AB029162	Glycine max	AAD28617.1	AF129087	Medicago sativa
BAA23339.1	D88619	Oryza sativa	AAC41680.1	L34206	Petroselinum crispum
BAA88224.1	AB028652	Nicotiana tabacum	CAC15503.1	AJ297916	Lycopersicon esculentum
BAA88221.1	AB028649	Nicotiana tabacum	BAA33152.1	AB008187	Pisum sativum
AAB41101.1	U72762	Nicotiana tabacum	CAA50038.1	X70707	Medicago sativa
			BAB18271.1	AB035141	Chlamydomonas reinhardtii
SEQ ID NO. 2347			CAA76701.1	Y17226	Lycopersicon esculentum
CAA70968.1	Y09825	Solanum tuberosum	CAA71242.1	Y10160	Chenopodium rubrum
AAF15946.1	AF061436	Vicia faba	AAB41548.1	L07042	Medicago sativa
CAA70969.1	Y09826	Solanum tuberosum	CAA73323.1	Y12785	Petroselinum crispum
AAB96830.1	U64823	Nicotiana sylvestris	CAA47099.1	X66469	Medicago sativa
CAA07563.1	AJ007574	Ricinus communis	CAA58761.1	X83880	Nicotiana tabacum
AAB48944.1	U31932	Nicotiana sylvestris	BAA21673.1	AB006033	Allium cepa
AAD16015.1	AF080544	Nepenthes alata	BAA09600.1	D61377	Nicotiana tabacum
CAA70778.1	Y09591	Vicia faba	CAA50036.1	Y70703	Pisum sativum
AAF15944.1	AF061434	Vicia faba	AAF81419.1	AF247135	Capsicum annuum
AAF15945.1	AF061435	Vicia faba	AAD37790.1	AF149424	Ipomoea batatas
AAF76897.1	AF274032	Atriplex hortensis	CAA57719.1	X82268	Medicago sativa
AAD16014.1	AF080543	Nepenthes alata	CAA73997.1	Y13646	Petunia x hybrida
AAD25161.1	AF014809	Lycopersicon esculentum			





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CAA74661.1	Y14285	Brassica oleracea	CAA53076.1	X75327	Pisum sativum
AAA33000.1	M76647	Brassica oleracea	AAB33843.1	S77096	Brassica napus
CAA79355.1	Z18921	Brassica oleracea	AAG43027.1	AF323586	Oryza sativa
CAB41878.1	Y18259	Brassica oleracea	AAC49268.1	U12196	Sorghum bicolor
BAA07576.1	D38563	Brassica rapa	AAC49267.1	U12195	Sorghum bicolor
BAA06285.1	D30049	Brassica rapa	SEQ ID NO. 2367		
BAA21132.1	D88193	Brassica rapa	AAB67737.1	L77080	Stylosanthes humilis
BAA07577.2	D38564	Brassica rapa	AAA32676.1	M37637	Arachis hypogaea
BAA92836.1	AB032473	Brassica oleracea	CAA64413.1	X94943	Lycopersicon esculentum
BAB21001.1	AB054061	Brassica rapa	CAA71494.1	Y10468	Spinacia oleracea
BAA92837.1	AB032474	Brassica oleracea	BAA82307.1	AB027753	Nicotiana tabacum
AAD52097.1	AF088885	Nicotiana tabacum	BAA11853.1	D83225	Populus nigra
AAK21965.1	AY028699	Brassica napus	AAC05277.1	AF049881	Linum usitatissimum
AAA33915.1	L27821	Oryza sativa	CAA80502.1	Z22920	Spirodela polyrrhiza
BAA94529.2	AP001800	Oryza sativa	BAA08499.1	D49551	Oryza sativa
AAF34428.1	AF172282	Oryza sativa	CAA66034.1	X97348	Populus balsamifera subsp.
AAG03090.1	AC073405	Oryza sativa	trichocarpa		
BAA94516.1	AP001800	Oryza sativa	AAD37430.1	AF149280	Phaseolus vulgaris
SEQ ID NO. 2364			CAB94692.1	AJ242742	Ipomoea batatas
AAC03055.1	AF045770	Oryza sativa	AAD37429.2	AF149279	Phaseolus vulgaris
AAA34025.1	M31480	Spinacia oleracea	AAF63027.1	AF244924	Spinacia oleracea
AAB41696.1	U69142	Spinacia oleracea	CAA66037.1	X97351	Populus balsamifera subsp.
BAA21098.1	AB001348	Oryza sativa	trichocarpa		
BAA96794.1	AB037421	Oryza sativa	AAD37430.1	AF149280	Phaseolus vulgaris
BAB18543.1	AB043539	Avicennia marina	CAB94692.1	AJ242742	Ipomoea batatas
CAA41376.1	X58462	Beta vulgaris	AAD37429.2	AF149279	Phaseolus vulgaris
CRA41377.1	X58463	Beta vulgaris	AAF63027.1	AF244924	Spinacia oleracea
AAG43988.1	AF215823	Zea mays	CAA66037.1	X97351	Populus balsamifera subsp.
BAB19052.1	AB044537	Oryza sativa	trichocarpa		
CAA71003.1	Y09876	Nicotiana tabacum	CAA66035.1	X97349	Populus balsamifera subsp.
AAF73828.1	AF162665	Oryza sativa	trichocarpa		
AAB70010.1	AF017150	Amaranthus hypochondriacus	BAA06334.1	D30652	Populus kitakamiensis
CRA49425.1	X69770	Atriplex hortensis	AAD11481.1	U51191	Glycine max
AAB58165.1	AF000132	Amaranthus hypochondriacus	BAA77389.1	AB024439	Scutellaria baicalensis
BAA96793.1	AB030939	Oryza sativa	CAB67121.1	Y19023	Lycopersicon esculentum
BAB18544.1	AB043540	Avicennia marina	CAA50597.1	X71593	Lycopersicon esculentum
BAA05466.1	D26448	Hordeum vulgare	AAD11482.1	U51192	Glycine max
AAF08296.1	AF196292	Apium graveolens	CAA71489.1	Y10463	Spinacia oleracea
AAB47571.1	U87848	Nicotiana plumbaginifolia	BAA07241.1	D38051	Populus kitakamiensis
CRA53075.1	X75326	Zea mays	CAA59487.1	X85230	Triticum aestivum
			AAA65637.1	L13654	Lycopersicon esculentum
			AAG02215.1	AF291667	Pinus sylvestris
			CAA76374.2	Y16776	Spinacia oleracea
			BAA11852.1	D83224	Populus nigra
			AAB41811.1	L36157	Medicago sativa

SEQ ID NO.	Accession	Species	SEQ ID NO.	Accession	Species
AA007211	AF007211	Glycine max	AA007211	AF007211	Glycine max
AA007212	AF007212	Populus balsamifera subsp.	AA007212	AF007212	Populus balsamifera subsp.
AA007213	AF007213	Nicotiana tabacum	AA007213	AF007213	Nicotiana tabacum
AA007214	AF007214	Zea mays	AA007214	AF007214	Zea mays
AA007215	AF007215	Triticum aestivum	AA007215	AF007215	Triticum aestivum
AA007216	AF007216	Oryza sativa	AA007216	AF007216	Oryza sativa
AA007217	AF007217	Arachis hypogaea	AA007217	AF007217	Arachis hypogaea
AA007218	AF007218	Gossypium hirsutum	AA007218	AF007218	Gossypium hirsutum
AA007219	AF007219	Armoracia rusticana	AA007219	AF007219	Armoracia rusticana
AA007220	AF007220	Nicotiana tabacum	AA007220	AF007220	Nicotiana tabacum
AA007221	AF007221	Asparagus officinalis	AA007221	AF007221	Asparagus officinalis
AA007222	AF007222	Nicotiana sylvestris	AA007222	AF007222	Nicotiana sylvestris
AA007223	AF007223	Zantedeschia aethiopica	AA007223	AF007223	Zantedeschia aethiopica
AA007224	AF007224	Pisum sativum	AA007224	AF007224	Pisum sativum
AA007225	AF007225	Hordeum vulgare	AA007225	AF007225	Hordeum vulgare
AA007226	AF007226	Hordeum vulgare	AA007226	AF007226	Hordeum vulgare
AA007227	AF007227	Mesembryanthemum crystallinum	AA007227	AF007227	Mesembryanthemum crystallinum
AA007228	AF007228	Spinacia oleracea	AA007228	AF007228	Spinacia oleracea
AA007229	AF007229	Helianthus annuus	AA007229	AF007229	Helianthus annuus
AA007230	AF007230	Lycopersicon esculentum	AA007230	AF007230	Lycopersicon esculentum
AA007231	AF007231	Nicotiana sylvestris	AA007231	AF007231	Nicotiana sylvestris
AA007232	AF007232	Nicotiana tabacum	AA007232	AF007232	Nicotiana tabacum
AA007233	AF007233	Gossypium hirsutum	AA007233	AF007233	Gossypium hirsutum
AA007234	AF007234	Helianthus annuus	AA007234	AF007234	Helianthus annuus
AA007235	AF007235	Hordeum vulgare	AA007235	AF007235	Hordeum vulgare
AA007236	AF007236	Chlamydomonas sp. W80	AA007236	AF007236	Chlamydomonas sp. W80
AA007237	AF007237	Chlamydomonas reinhardtii	AA007237	AF007237	Chlamydomonas reinhardtii
AA007238	AF007238	Lycopersicon esculentum	AA007238	AF007238	Lycopersicon esculentum
AA007239	AF007239	Triticum aestivum	AA007239	AF007239	Triticum aestivum
AA007240	AF007240	Betula pendula	AA007240	AF007240	Betula pendula
AA007241	AF007241	Antirrhinum majus	AA007241	AF007241	Antirrhinum majus
AA007242	AF007242	Antirrhinum majus	AA007242	AF007242	Antirrhinum majus
AA007243	AF007243	Antirrhinum majus	AA007243	AF007243	Antirrhinum majus
AA007244	AF007244	Antirrhinum majus	AA007244	AF007244	Antirrhinum majus
AA007245	AF007245	Antirrhinum majus	AA007245	AF007245	Antirrhinum majus
AA007246	AF007246	Zea mays	AA007246	AF007246	Zea mays
AA007247	AF007247	SEQ ID NO. 2368	AA007247	AF007247	SEQ ID NO. 2368
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AA007258	AF007258	AA007258	AA007258	AF007258	AA007258
AA007259	AF007259	AA007259</			

AAK09326.1	AF320613	Zea mays	BAA76387.1	D67038	Pyrus pyrifolia
			CRA67216.1	X98627	Malus x domestica
			CAA68538.1	Y00478	Lycopersicon esculentum
SEQ ID NO. 2375			AAA33644.1	M98357	Pisum sativum
AAFI4244.1	AF110228	Spinacia oleracea	CAA71140.1	Y10034	Rumex palustris
AAFI4242.1	AF110226	Nicotiana tabacum	AAA99793.1	U54566	Nicotiana glutinosa
AAFI4245.1	AF110229	Spinacia oleracea	CAA60576.1	X87097	Pyrus communis
AAFI4246.1	AF110230	Spinacia oleracea	AAB71421.1	L29405	Helianthus annuus
			AAC48922.1	U06047	Vigna radiata
SEQ ID NO. 2379			CAA67119.1	X98493	Nicotiana tabacum
CRA57285.1	X81629	Brassica oleracea	CAA58232.1	X03229	Nicotiana tabacum
AAA32981.1	L27664	Brassica napus			
CRA57284.1	X81628	Brassica oleracea			
AAF65472.1	AF252628	Brassica juncea	SEQ ID NO. 2381		Brassica napus
AAC98808.1	U68215	Carica papaya	AAF98390.1	AF287143	Citrus unshiu
AAA33697.1	L21978	Petunia x hybrida	BAA93039.1	AB033758	Petunia x hybrida
AAF64528.1	AF254125	Carica papaya	BAA89009.1	AB027455	Nicotiana tabacum
AAF64528.1	AF254125	Carica papaya	AAF61647.1	AF190634	Perilla frutescens
AAB70883.1	U19856	Pelargonium x hortorum	BAA36421.1	AB013596	Verbena x hybrida
BAA21541.1	AB003514	Actinidia deliciosa	BAA36423.1	AB013598	Zea mays
AAC48977.1	U07953	Pelargonium x hortorum	AAA59054.1	L34847	Perilla frutescens
CAA71738.1	Y10749	Betula pendula	BAA36422.1	AB013597	Sorghum bicolor
AAC37381.1	L21976	Petunia x hybrida	AAF17077.1	AF199453	Nicotiana tabacum
CAA86468.1	Z46349	Nicotiana tabacum	AAB36652.1	U32643	Nicotiana tabacum
BAA94601.1	AB033504	Populus euramericana	AAK28304.1	AF346432	Nicotiana tabacum
BAA34924.1	AB013101	Lycopersicon esculentum	AAB36653.1	U32644	Gentiana triflora
BAA83466.1	AB012857	Nicotiana tabacum	BAA12737.1	D85186	Nicotiana tabacum
AAF36484.1	AF129074	Prunus persica	AAK28303.1	AF346431	Scutellaria baicalensis
AAB70884.1	U67861	Pelargonium x hortorum	BAA83484.1	AB031274	Perilla frutescens
CAA64799.1	X95553	Cucumis melo	BAA19659.1	AB002818	Forsythia x intermedia
CRA90904.1	Z54199	Lycopersicon esculentum	AAD21086.1	AF127218	Lycopersicon esculentum
CAA41212.1	X58273	Lycopersicon esculentum	CAA59450.1	X85138	Dortheanthus bellidiformis
AAA33698.1	L21979	Petunia x hybrida	CAB56231.1	Y18871	Solanum tuberosum
CRA04895.1	AJ001646	Malus x domestica	AAB48444.1	U82367	Vitis vinifera
CAA82646.1	Z29529	Nicotiana tabacum	BAB41020.1	AB047093	Vitis vinifera
CRA54449.1	X77232	Prunus persica	BAB41026.1	AB047099	Vitis vinifera
AAF36483.1	AF129073	Prunus persica	BAB41024.1	AB047097	Vitis vinifera
AAC67233.1	AF033582	Cucumis sativus	BAB41022.1	AB047095	Vitis labrusca x Vitis vinifera
AAC33524.1	AF026793	Prunus armeniaca	BAB41017.1	AB047090	Vitis vinifera
BAA90550.1	AB031027	Prunus mume	BAB41019.1	AB047092	Vitis vinifera
CAA74328.1	Y14005	Malus x domestica	BAB41021.1	AB047094	Vitis vinifera
AAC36461.1	AF030859	Malus x domestica	BAB41023.1	AB047096	Vitis vinifera
AAA99792.1	U54565	Nicotiana glutinosa			

BAB01025.1	AB047098	Vitis vinifera	BAA05623.1	D26574	Daucus carota
BAA89008.1	AB027454	Petunia x hybrida	AAD37697.1	AF145728	Oryza sativa
AAB81683.1	AF000372	Vitis vinifera	AAF01764.2	AF184277	Glycine max
AAB81682.1	AF000371	Vitis vinifera	BAA21017.1	D26578	Daucus carota
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	AAF73482.1	AF268422	Brassica rapa subsp. pekin
CAA31855.1	X13500	Zea mays	BAA93460.1	AB028072	Physcomitrella patens
SEQ ID NO. 2385			SEQ ID NO. 2387		
AAB31704.1	S72356	Chloroplast Nicotiana	BAA97745.1	AB037887	Lupinus albus
sylvestris			BAA82130.1	AB023385	Lupinus albus
AAB31705.1	S72358	Chloroplast Nicotiana	CAA06921.1	AJ006224	Ipomoea batatas
sylvestris			AAF19822.1	AF200826	Ipomoea batatas
BAA07667.1	D42070	Nicotiana sylvestris	BAA92365.1	AB039746	Spirodela punctata
BAA78581.1	AU066497	Chlamydomonas sp. HS-5	CAA04644.1	AJ001270	Phaseolus vulgaris
SEQ ID NO. 2386			AAF19820.1	AF200824	Glycine max
AAD37696.1	AF145727	Oryza sativa	AAF19821.1	AF200825	Ipomoea batatas
BAA93463.1	AB028075	Physcomitrella patens	AAD20634.1	AF126255	Anchusa officinalis
CAA63222.1	X92489	Glycine max	CAA07280.1	AJ006870	Ipomoea batatas
CAA64221.1	X94449	Pimpinella brachycarpa	BAA97038.1	AB029086	Tagetes patula
AAK31270.1	AC079890	Oryza sativa	BAA82133.1	AB023388	Lycopersicon esculentum
AAF19980.1	AF211193	Oryza sativa	BAA82131.1	AB023386	Glycine max
CAA65456.2	X96681	Oryza sativa	BAA82132.1	AB023387	Oryza sativa
CAA64152.1	X94375	Pimpinella brachycarpa	SEQ ID NO. 2389		
CAA64491.1	X95193	Pimpinella brachycarpa	BAA07395.1	D38220	Brassica napus
AAD37695.1	AF145726	Oryza sativa	BAA07394.1	D38219	Brassica napus
AAD37700.1	AF145731	Oryza sativa	AAG30576.1	AF314093	Ricinus communis
CAA06728.1	AJ005833	Craterostigma plantagineum	CAA32217.1	X14059	Nicotiana tabacum
CAA06717.1	AJ005820	Craterostigma plantagineum	CAA32218.1	X14060	Lycopersicon esculentum
BAA05622.1	D26573	Daucus carota	AAA33712.1	L11563	Petunia x hybrida
BAA93462.1	AB028074	Physcomitrella patens	CAA32216.1	X14058	Nicotiana tabacum
AAD37698.1	AF145729	Oryza sativa	CAA56696.1	X80670	Lotus japonicus
BAA93465.1	AB028077	Physcomitrella patens	AAB52786.1	U95317	Solanum tuberosum
BAA05624.1	D26575	Daucus carota	AAB18985.1	U76701	Solanum tuberosum
BAA93468.1	AB028080	Physcomitrella patens	AAA95940.1	U01029	Phaseolus vulgaris
BAA05625.1	D26576	Daucus carota	AAA34033.1	M32600	Spinacia oleracea
BAA93466.1	AB028078	Physcomitrella patens	CAA38031.1	X54097	Betula pendula
BAA93464.1	AB028076	Physcomitrella patens	BAA13047.1	D86226	Spinacia oleracea
BAA93467.1	AB028079	Physcomitrella patens	AAA33114.1	M33154	Cucurbita maxima
BAA93461.1	AB028073	Physcomitrella patens	AAD19790.1	AF055369	Glycine max
AAF01765.1	AF184278	Glycine max	CAA58909.1	X84103	Cichorium intybus

AAA96813.1	U13987	Glycine max	AAG13663.1	AF263457	Zea mays
CAA37672.1	X53603	Phaseolus vulgaris	AAC98090.1	AF067400	Zea mays
AAA96727.1	L23854	Glycine max	BAA90816.1	AP001168	Oryza sativa
AAA62316.1	U20450	Zea mays	AAC98091.1	AF067401	Oryza sativa
AAD38068.1	AF153448	Zea mays	SEQ ID NO. 2398		
CAA40975.1	X57844	Hordeum vulgare	BAA81862.1	AB026295	Oryza sativa
CAA40976.1	X57845	Hordeum vulgare	AAB39995.1	U82432	Dianthus caryophyllus
CAA442739.1	X60173	Hordeum vulgare	AAD56580.1	AF184273	Daucus carota
AAB93560.1	AF022780	Glycine max	AAD56581.1	AF184274	Daucus carota
AAF17595.1	AF203033	Chlamydomonas reinhardtii	CRA50498.1	X71360	Malus sp.
CRA45497.1	X64136	Volvox carteri	AAD26205.1	AF117269	Malus x domestica
AAC49460.1	U39931	Chlorella vulgaris	AAB82287.1	AF026058	Matthiola incana
AAC49459.1	U39930	Chlorella vulgaris	BAA20143.1	AB003779	Perilla frutescens
CAC29497.1	X06134	Nicotiana tabacum	AAB66560.1	AF015885	Callistephus chinensis
AAA18377.1	U08029	Spinacia oleracea	BAB21477.1	AB044091	Torenia fournieri
AAB39553.1	U64308	Agrostemma githago	CRA53580.1	X75966	Vitis vinifera
AAA03202.1	M27821	Zea mays	BAA75305.1	AB023786	Ipomoea batatas
AAA33483.1	M77792	Zea mays	AAB84049.1	AF028602	Ipomoea purpurea
AAB39555.1	U64310	Agrostemma githago	BAA75306.1	AB023787	Ipomoea batatas
AAB39554.1	U64309	Agrostemma githago	CAA73094.1	Y12489	Forsythia x intermedia
CAA33819.1	X15820	Oryza sativa	CAA69252.1	Y07955	Oryza sativa
CAA33817.1	X15819	Oryza sativa	SEQ ID NO. 2399		
AAA33998.1	L23853	Glycine max	CAC12822.1	AJ299252	Nicotiana tabacum
CRA58908.1	X84102	Cichorium intybus	AAF63205.1	AF245119	Mesembryanthemum crystallinum
CAA40090.1	X56771	Chlorella vulgaris	AAC24587.1	AF071893	Prunus armeniaca
CAA45776.1	X64446	Zea mays	BAB16083.1	AB036883	Oryza sativa
AAD17694.1	AF077372	Zea mays	BAB03248.1	AB037183	Oryza sativa
AAA96242.1	L40147	Avena strigosa	AAF76898.1	AF274033	Atriplex hortensis
AAB20155.1	S61885	Nicotiana glauca	CAB96900.1	AJ251250	Catharanthus roseus
AAA96245.1	L40151	Hordeum pusillum	CAB96899.1	AJ251249	Catharanthus roseus
AAA96247.1	L40153	Hordeum stenostachys	BAA07321.1	D38123	Nicotiana tabacum
SEQ ID NO. 2390			AAG43545.1	AF211527	Nicotiana tabacum
AAG36871.1	AF239818	Zea mays	BAA99376.1	AP002526	Oryza sativa
AAG36870.1	AF239817	Zea mays	AAB23899.1	AF193803	Oryza sativa
AAG36869.1	AF239816	Zea mays	BAA78738.1	AB023482	Oryza sativa
SEQ ID NO. 2395			AAC62619.1	AF057373	Nicotiana tabacum
AAC49600.1	U30304	Solanum brevifolium	AAG43549.1	AF211531	Nicotiana tabacum
SEQ ID NO. 2397			AAG43548.1	AF211530	Nicotiana tabacum
			AAG32659.1	AF253971	Picea abies

SEQ ID NO. 2400	AAA0651.1	U27116	Populus tremuloides	BAA81777.1	AP000364	Oryza sativa
	AAC49915.1	U62735	Nicotiana tabacum	CAA10217.1	AJ130841	Populus balsamifera subsp.
	CAA12198.1	AJ224894	Populus balsamifera subsp.	trichocarpa		
	trichocarpa			AAD50441.1	AF168778	Eucalyptus globulus
	AAC08395.1	AF053553	Mesembryanthemum crystallinum	AAD50442.1	AF168779	Eucalyptus globulus
	CAA11496.1	AJ223621	Populus balsamifera subsp.	AAC15067.1	AF060180	Nicotiana tabacum
	trichocarpa					
	AAD02050.1	AF036095	Pinus taeda	SEQ ID NO. 2402		
	CAB45149.1	AJ242980	Zea mays	CAB82852.1	Z30329	Mesembryanthemum crystalli
	AAC28973.1	U20736	Medicago sativa subsp. sativa	CAA82991.1	Z30330	Spinacia oleracea
	CAA90969.1	Z54233	Vitis vinifera	BAB03409.1	AP002816	Oryza sativa
	CAB05369.1	Z82982	Nicotiana tabacum	CAA50374.1	X71057	Nicotiana tabacum
	AAF44689.1	AF240466	Populus tomentosa	CAA82994.1	Z30333	Mesembryanthemum crystalli
	BAA78733.1	AB023482	Oryza sativa	CAA82993.1	Z30332	Spinacia oleracea
	AAC49916.1	U62736	Nicotiana tabacum	BAB18104.1	AB042714	Chlamydomonas reinhardtii
	AAC49913.1	U38612	Nicotiana tabacum	BAB18105.1	AB042715	Chlamydomonas reinhardtii
	CAA90894.1	Z54183	Petroselinum crispum	CAA62476.1	X90990	Solanum tuberosum
	AAB80931.1	AF022775	Nicotiana tabacum	AAA50304.1	M92989	Pisum sativum
	AAA33851.1	M69184	Petroselinum crispum	AAF66637.1	AF143505	Lycopersicon esculentum
	CAA83943.1	Z33878	Petroselinum crispum	BAA96593.1	AP002481	Oryza sativa
	CAA11495.1	AJ223620	Populus balsamifera subsp.	CAA73067.1	X97980	Solanum berthaultii
	trichocarpa			CAA73068.1	Y12464	Sorghum bicolor
	CAA12200.1	AJ224896	Populus balsamifera subsp.	CAA73068.1	Y12465	Sorghum bicolor
	trichocarpa			BAA83689.1	AB011968	Oryza sativa
	CAA12199.1	AJ224895	Populus balsamifera subsp.	BAA83688.1	AB011967	Oryza sativa
	trichocarpa			AAB62693.1	AF004947	Oryza sativa
	CAB45150.1	AJ242981	Zea mays	AAD23582.1	AF128443	Glycine max
	AAC49914.1	U62734	Nicotiana tabacum	AAF22219.1	AF141378	Zea mays
	CAA72911.1	Y12228	Eucalyptus gunnii	BAA05649.1	D26602	Nicotiana tabacum
	AAK16714.1	AF327458	Populus alba x Populus	CAA71142.1	Y10036	Cucumis sativus
	glandulosa			CAA82992.1	Z30331	Mesembryanthemum crystallinum
	AAA59389.1	U13151	Zinnia elegans	SEQ ID NO. 2403		
	AAD50443.1	AF168780	Eucalyptus globulus	CAB41474.1	AJ238402	Catharanthus roseus
	CAA91228.1	Z56282	Nicotiana tabacum	AAK31592.1	AY029178	Brassica rapa subsp. pekinensis
	AAC26191.1	AF046122	Eucalyptus globulus	AAG17470.1	AF123609	Triticum aestivum
	AAB61680.1	L22203	Stellaria longipes	AAG33645.1	AF092917	Vicia sativa
	BAA81774.1	AP000364	Oryza sativa	AAD10204.1	AF030260	Vicia sativa
	BAA88234.1	AB035144	Citrus natsudaoidai	AAB94586.1	AF022457	Glycine max
	BAA19102.1	AB000408	Populus kitakamiensis	BAA93632.1	AB024931	Lotus japonicus
				BAA76380.1	AB023636	Glycyrrhiza echinata

BAA74465.1	AB022732	Glycyrrhiza echinata	AAB65161.1	AF002666	Solanum commersonii
CAA70576.1	Y09424	Nepeta racemosa	CAB97352.1	AJ249144	Hordeum vulgare
AAC49188.2	U29333	Pisum sativum	CAA67969.1	X99655	Betula pendula
AAG09208.1	AF175278	Pisum sativum	CAA67967.1	X99653	Betula pendula
BAA84071.1	AB028151	Antirrhinum majus	AAG09136.1	AF150932	Physcomitrella patens
CAA89260.1	Z49263	Pisum sativum	AAG09135.1	AF150931	Physcomitrella patens
BAA22422.1	AB001379	Glycyrrhiza echinata	AAC83170.1	U78948	Malus x domestica
AAF34538.1	AF195817	Beta vulgaris	BAA25246.1	D89671	Ceratopteris richardii
AAF34531.1	AF195810	Trifolium pratense	AAF13261.1	AF198175	Dendrobium greg Madame Tho
AAD38929.1	AF135484	Glycine max	CAC35027.1	AJ291298	Pisum sativum
AAF34525.1	AF195804	Lens culinaris	CAC37031.1	AJ279089	Pisum sativum
BAA93634.1	AB025016	Lotus japonicus	AAC39037.1	AF068726	Nicotiana sylvestris
AAF34530.1	AF195809	Vigna radiata	AAB08875.1	U67451	Brassica oleracea
BAA84072.1	AB028152	Torenia hybrida	AAG30923.1	AF306349	Eucalyptus globulus
AAB94591.1	AF022462	Glycine max	AAG27459.1	AF305696	Eucalyptus globulus
AAF34529.1	AF195808	Vigna radiata	AAG24909.1	AF305076	Eucalyptus globulus
AAF45143.1	AF195819	Glycine max	AAB08876.1	U67452	Brassica oleracea
AAF34532.1	AF195811	Trifolium pratense	AAD39036.1	AF068725	Nicotiana sylvestris
AAF45142.1	AF195818	Glycine max	CAA67968.1	X99654	Betula pendula
AAF34528.1	AF195807	Vigna radiata	AAD20329.1	AF109403	Sinapis alba
AAF34527.1	AF195806	Vigna radiata			
			SEQ ID NO. 2405		
			AAG34803.1	AF243368	Glycine max
			AAF64450.1	AF239928	Euphorbia esula
			AAG34798.1	AF243363	Glycine max
			AAG34801.1	AF243366	Glycine max
			AAG34797.1	AF243362	Glycine max
			AAG34796.1	AF243361	Glycine max
			AAG34807.1	AF243372	Glycine max
			AAG34804.1	AF243369	Glycine max
			AAG34810.1	AF243375	Glycine max
			AAG34809.1	AF243374	Glycine max
			AAG34805.1	AF243370	Glycine max
			AAC18566.1	AF048978	Glycine max
			AAG34808.1	AF243373	Glycine max
			AAG34800.1	AF243365	Glycine max
			AAG34829.1	AF244686	Zea mays
			AAG34802.1	AF243367	Glycine max
			AAG34837.1	AF244694	Zea mays
			CAA09187.1	AJ010448	Alopecurus myosuroides
			CRA09188.1	AJ010449	Alopecurus myosuroides
			SEQ ID NO. 2404		
			AAG09919.1	AF112149	
			AAB51377.1	U91964	
			BAA94342.1	AB041020	
			AAF66997.2	AF139664	
			CAB97354.1	AJ249146	
			AAD10625.1	AF035378	
			AAG43200.1	AF112150	
			BAA33457.1	AB007504	
			AAB00081.1	L46400	
			AAD10626.1	AF035379	
			AAF19047.1	AF058697	
			BAA81883.1	AB003325	
			AAF19721.1	AF176782	
			AAF19048.1	AF058698	
			AAD39035.1	AF068724	
			CRA04321.1	AJ000759	
			AAF04972.1	AF091458	
			CAB56800.1	AJ011675	



AAG34849.1	AF244706	Zea mays	BAA88981.1	AB025778	Citrus unshiu
AAG34844.1	AF244701	Zea mays	CAA49428.1	X69773	Vicia faba
AAG34806.1	AF243371	Glycine max	CAB38022.1	AJ132000	Craterostigma plantagineum
CAA71784.1	Y10820	Glycine max	CAA09593.1	AJ011319	Lycopersicon esculentum
AAA68430.1	J03679	Solanum tuberosum	CAA09910.1	AJ012080	Pisum sativum
CAA04391.1	AJ000923	Carica papaya	CAA65639.1	X96938	Tulipa gesneriana
AAG34836.1	AF244693	Zea mays	CAA65640.1	X96939	Tulipa gesneriana
AAG34831.1	AF244688	Zea mays	CAB40794.1	AJ131943	Medicago truncatula
AAG34847.1	AF244704	Zea mays	AAC17867.1	AF049487	Medicago sativa
AAC32118.1	AF051214	Picea mariana	AAC39323.1	AF030231	Glycine max
AAF29773.1	AF159229	Gossypium hirsutum	CAA76057.1	Y16091	Daucus carota
AAG41204.1	AF321437	Suaeda maritima	BAA89049.1	AB029401	Citrus unshiu
CAC24549.1	AJ296343	Cichorium intybus x Cichorium endivia	CAA63122.1	X92378	Alnus glutinosa
			CAA76056.1	Y16090	Daucus carota
			CAA53081.1	X75332	Daucus carota
SEQ ID NO. 2407			AAC28107.1	AF079851	Pisum sativum
AAG43509.1	AF210049	Petunia x hybrida	CAB40795.1	AJ131964	Medicago truncatula
AAC15460.1	AF060569	Lavatera thuringiaca	AAA34196.1	L19762	Lycopersicon esculentum
			BAA01108.1	D10266	Vigna radiata
SEQ ID NO. 2409			BAA88905.1	AB022092	Citrus unshiu
BAB20583.1	AB042270	Zea mays	CAA09681.1	AJ011535	Lycopersicon esculentum
AAK13126.1	AC083945	Oryza sativa	AAA97571.1	U24087	Solanum tuberosum
CAC09578.1	AJ298990	Fagus sylvatica	AAD28641.1	U73588	Gossypium hirsutum
AAA85479.1	U41103	Lycopersicon esculentum	AAA97572.1	U24088	Solanum tuberosum
AAB39386.1	U47279	Lycopersicon esculentum	CAA04512.1	AJ001071	Pisum sativum
AAB97160.1	AF022727	Nicotiana tabacum	BAB20799.1	AB045710	Pyrus pyrifolia
			CAA57881.1	X82504	Chenopodium rubrum
SEQ ID NO. 2410			AAF85966.1	AF263384	Saccharum officinarum
AAD01541.1	AF004810	Glycine max	CAA26229.1	X02382	Zea mays
AAB01552.1	L47607	Picea glauca	CAA26247.1	X02400	Zea mays
AAD09208.1	U38246	Glycine soja	CAA46017.1	X64770	Oryza sativa
AAD09209.1	U38247	Glycine soja	CAA78747.1	Z15028	Oryza sativa
			CAA04543.1	AJ001117	Triticum aestivum
SEQ ID NO. 2413			CAA46701.1	X65871	Hordeum vulgare
BAA03763.1	D16247	Nicotiana sylvestris	CAC32462.1	AJ311496	Pisum sativum
AAF40306.1	AF156667	Vigna radiata	CAA75793.1	Y15802	Hordeum vulgare
AAF75791.1	AF271892	Pisum sativum	AAA33515.1	L33244	Zea mays
CAA68193.1	X99937	Spinacia oleracea	CAA41774.1	X59046	Oryza sativa
			AAC41682.1	L03366	Oryza sativa
SEQ ID NO. 2415			CAA49551.1	X69931	Hordeum vulgare
BAA88904.1	AB022091	Citrus unshiu	CAA03935.1	AJ000153	Triticum aestivum

CAB38021.1	AJ131999	Craterostigma plantagineum	AAE17077.1	AF199453	Sorghum bicolor
CAA57499.1	X81974	Beta vulgaris	CAA59450.1	X85138	Lycopersicon esculentum
CAA47264.1	X66728	Hordeum vulgare	BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera
			BAB41026.1	AB047099	Vitis vinifera
			BAB41024.1	AB047097	Vitis vinifera
			BAB41022.1	AB047095	Vitis vinifera
			BAB41020.1	AB047093	Vitis vinifera
			BAA89008.1	AB027454	Petunia x hybrida
			BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera
			CAB56231.1	Y18871	Dorotheanthus bellidifolius
			AAB81683.1	AF000372	Vitis vinifera
			BAB41019.1	AB047092	Vitis vinifera
			BAB41025.1	AB047098	Vitis vinifera
			BAB41023.1	AB047096	Vitis vinifera
			BAB41021.1	AB047094	Vitis vinifera
			AAB81682.1	AF000371	Vitis vinifera
			BAA19659.1	AB002818	Perilla frutescens
			BAA90787.1	AB038248	Ipomoea batatas
			AAD04166.1	AF101972	Phaseolus lunatus
			AAB86473.1	AF028237	Ipomoea purpurea
			SEQ ID NO. 2420		
			CAA64614.1	X95296	Lycopersicon esculentum
			AAF22256.1	AF161711	Pimpinella brachycarpa
			CAA78386.1	Z13996	Petunia x hybrida
			CAA67600.1	X99210	Lycopersicon esculentum
			CAB43399.1	AJ006292	Antirrhinum majus
			CAA78387.1	Z13997	Petunia x hybrida
			BAA88222.1	AB028650	Nicotiana tabacum
			BAA88224.1	AB028652	Nicotiana tabacum
			BAA88221.1	AB028649	Nicotiana tabacum
			CAA66952.1	X98308	Lycopersicon esculentum
			AAG08962.1	AF122054	Solanum tuberosum
			BAA88223.1	AB028651	Nicotiana tabacum
			AAB41101.1	U72762	Nicotiana tabacum
			AAF66731.1	AF146706	Petunia x hybrida
			AAF66727.1	AF146702	Petunia x hybrida
			AAF66729.1	AF146704	Petunia integrifolia
			AAF66728.1	AF146703	Petunia integrifolia
			AAF66732.1	AF146707	Petunia x hybrida
			AAF66730.1	AF146705	Petunia x hybrida
			SEQ ID NO. 2417		
			AAF61647.1	AF190634	Lycopersicon esculentum
			BAA89009.1	AB027455	Pimpinella brachycarpa
			AA59054.1	L34847	Petunia x hybrida
			BAA93039.1	AB033758	Lycopersicon esculentum
			BAA36423.1	AB013598	Antirrhinum majus
			BAA36421.1	AB013596	Petunia x hybrida
			AAF98390.1	AF287143	Nicotiana tabacum
			BAA36422.1	AB013597	Nicotiana tabacum
			BAA83484.1	AB031274	Nicotiana tabacum
			AAB36652.1	U32643	Lycopersicon esculentum
			AAK28304.1	AF346432	Solanum tuberosum
			AAD21086.1	AF127218	Nicotiana tabacum
			AAB36653.1	U32644	Nicotiana tabacum
			BAA12737.1	D85186	Petunia x hybrida
			AAK28303.1	AF346431	Petunia x hybrida
			SEQ ID NO. 2416		
			CAA80358.1	Z22645	Solanum tuberosum
			CAA79676.1	Z21486	Solanum tuberosum
			CAA57428.1	X81834	Nicotiana tabacum
			CAA49162.1	X69321	Daucus carota
			CAA57389.1	X81792	Chenopodium rubrum
			AAC17166.1	AF063246	Pisum sativum
			CAA59677.1	X85327	Pisum sativum
			AAD02263.1	AF043346	Zea mays
			CAA84526.1	Z35162	Vicia faba
			AAC96065.1	AF030420	Triticum aestivum
			CAA53099.1	X75353	Daucus carota
			AAB68679.1	U92438	Phaseolus vulgaris
			CAA89992.1	Z49831	Vicia faba
			CAA53097.1	X75351	Daucus carota
			CAA77267.1	Y18707	Daucus carota
			CAA53098.1	X75352	Daucus carota
			CAA77266.1	Y18706	Daucus carota
			AAC96066.1	AF030421	Triticum aestivum
			AAG36943.1	AF274299	Brassica oleracea
			SEQ ID NO. 2417		
			AAF61647.1	AF190634	Nicotiana tabacum
			BAA89009.1	AB027455	Petunia x hybrida
			AA59054.1	L34847	Zea mays
			BAA93039.1	AB033758	Citrus unshiu
			BAA36423.1	AB013598	Verbena x hybrida
			BAA36421.1	AB013596	Perilla frutescens
			AAF98390.1	AF287143	Brassica napus
			BAA36422.1	AB013597	Perilla frutescens
			BAA83484.1	AB031274	Scutellaria baicalensis
			AAB36652.1	U32643	Nicotiana tabacum
			AAK28304.1	AF346432	Nicotiana tabacum
			AAD21086.1	AF127218	Forsythia x intermedia
			AAB36653.1	U32644	Nicotiana tabacum
			BAA12737.1	D85186	Gentiana triflora
			AAK28303.1	AF346431	Nicotiana tabacum

AAF66734.1	AF146709	Petunia axillaris	AAA74017.1	U30475	Glycine max
AAF66733.1	AF146708	Petunia axillaris			
SEQ ID NO. 2421			SEQ ID NO. 2422		
AAF01764.2	AF184277	Glycine max	AAD17230.1	AF117339	Nicotiana tabacum
BAB18171.1	AB042769	Zinnia elegans	CAA09935.1	AJ012165	Capsicum annuum
BAA21017.1	D26578	Daucus carota	BAA33755.2	AB017480	Nicotiana tabacum
AAD37697.1	AF145728	Oryza sativa	AAK15322.1	AF332134	Chloroplast Medicago sativa
BAA05625.1	D26576	Daucus carota	CAA06853.1	AJ006095	Cicer arietinum
AAF01765.1	AF184278	Glycine max	BAA57906.1	AB001684	Chlorella vulgaris
BAA05623.1	D26574	Daucus carota	SEQ ID NO. 2423		
BAA93465.1	AB028077	Physcomitrella patens	CAA55739.1	X79138	Nicotiana tabacum
CAA64417.1	X94947	Lycopersicon esculentum	CAA55742.1	X79141	Nicotiana tabacum
BAA93461.1	AB028073	Physcomitrella patens	CAA55641.1	X79008	Nicotiana tabacum
BAA93464.1	AB028076	Physcomitrella patens	CAA55642.1	X79009	Nicotiana tabacum
BAA93466.1	AB028078	Physcomitrella patens	CAA55737.1	X79136	Nicotiana tabacum
BAA05624.1	D26575	Daucus carota	CAA55741.1	X79140	Nicotiana tabacum
BAA05622.1	D26573	Daucus carota	SEQ ID NO. 2431		
BAA93467.1	AB028079	Physcomitrella patens	AAB18669.1	U11716	Pisum sativum
AAD37698.1	AF145729	Oryza sativa	AAA33662.1	M18250	Pisum sativum
BAA93460.1	AB028072	Physcomitrella patens	AAD25355.1	AF115574	Pisum sativum
BAB18164.1	AB042762	Zinnia elegans			
BAA93468.1	AB028080	Physcomitrella patens	SEQ ID NO. 2442		
AAD37699.1	AF145730	Oryza sativa	AAC33475.1	AF082531	Pimpinella brachycarpa
AAD38144.1	AF139497	Prunus armeniaca	AAF19968.1	AF207699	Elaeis guineensis
AAA63768.2	AF339748	Helianthus annuus	AAK21252.1	AF335239	Petunia x hybrida
CAA62608.1	X91212	Lycopersicon esculentum	AAK21251.1	AF335238	Petunia x hybrida
BAA93463.1	AB028075	Physcomitrella patens	CAA53782.1	X76188	Nicotiana tabacum
CAA06717.1	AJ005820	Craterostigma plantagineum	BAA81886.1	AB003328	Oryza sativa
BAB18170.1	AB042768	Zinnia elegans	AAD38369.1	AF141965	Oryza sativa
CAA64221.1	X94449	Pimpinella brachycarpa	AAK21257.1	AF335244	Petunia x hybrida
CAA64491.1	X95193	Pimpinella brachycarpa	AAB41526.1	U25696	Sinapis alba
CAA64152.1	X94375	Pimpinella brachycarpa	AAK21253.1	AF335240	Petunia x hybrida
AAD37695.1	AF145726	Oryza sativa	AAG43199.1	AF112148	Zea mays
AAD37700.1	AF145731	Oryza sativa	AAK21254.1	AF335241	Petunia x hybrida
CAA06728.1	AJ005833	Craterostigma plantagineum	AAB50187.1	U49734	Sorghum bicolor
CAA65456.2	X96681	Oryza sativa	BAA85630.1	AB022665	Gnetum parvifolium
AAK31270.1	AC079890	Oryza sativa	CAA04322.1	AJ000760	Malus x domestica
AAF19980.1	AF211193	Oryza sativa	AAB58907.1	U76726	Pinus radiata
AAD37696.1	AF145727	Oryza sativa	AAF22138.1	AF129875	Capsicum annuum
CAA63222.1	X92489	Glycine max			

AAB64250.1	U78782	Oryza sativa	AAF63024.1	AF244921	Spinacia oleracea
AAD01266.1	AF006210	Pinus resinosa	CAA80502.1	Z22920	Spirodela polyrrhiza
CAB56800.1	AJ011675	Oryza sativa	AAD11481.1	U51191	Glycine max
AAR21249.1	AF335236	Petunia x hybrida	AAD11482.1	U51192	Glycine max
AAC97158.1	U69483	Picea mariana	CAA59487.1	X85230	Triticum aestivum
AAC97157.1	U69482	Picea mariana	CAC21393.1	AJ401276	Zea mays
AAC97146.1	U46582	Picea mariana	AAB97734.1	AF014502	Glycine max
AAC49817.1	U78892	Oryza sativa	CAA71495.1	Y10469	Spinacia oleracea
AAB00078.1	L46397	Zea mays	AAB48986.1	U16727	Medicago truncatula
AAD09342.1	AF023615	Pinus radiata	AAA98491.1	L36981	Petroselinum crispum
AAF04972.1	AF091458	Oryza sativa	AAA65637.1	L13654	Lycopersicon esculentum
AAF77579.1	AF072534	Capsicum annuum	AAA65636.1	L13653	Lycopersicon esculentum
CAB97353.1	AJ249145	Hordeum vulgare	AAF63027.1	AF244924	Spinacia oleracea
AAB00079.1	L46398	Zea mays	BAA92500.1	AP001383	Oryza sativa
AAD51423.1	U78950	Malus x domestica	CAA76374.2	Y16776	Spinacia oleracea
BAA33458.1	AB007505	Triticum aestivum	CAA62226.1	X90693	Medicago sativa
AAF21900.1	AF109153	Oryza sativa	CAA40796.1	X57564	Armoracia rusticana
			CAA71490.1	Y10464	Spinacia oleracea
			AAC49820.1	AF014469	Oryza sativa
SEQ ID NO. 2444		Solanum tuberosum subsp.	BAA82306.1	AB027752	Nicotiana tabacum
AAD22975.1	AF126551		CAA62597.1	X91172	Raphanus sativus
tuberosum			BAA77388.1	AB024438	Scutellaria baicalensis
CAA48638.1	X68678	Zea mays	CAA62225.1	X90692	Medicago sativa
AAF65770.1	AF242312	Euphorbia esula	BAA92497.1	AP001383	Oryza sativa
AAC05639.1	AF052206	Chlamydomonas reinhardtii	AAF65464.2	AF247700	Oryza sativa
AAG03106.1	AC073405	Oryza sativa	BAA92422.1	AP001366	Oryza sativa
BAA84791.1	AP000559	Oryza sativa	BAA01950.1	D11337	Vigna angularis
			AAD37427.1	AF149277	Phaseolus vulgaris
SEQ ID NO. 2445		Chlamydomonas reinhardtii	AB41812.1	L36158	Medicago sativa
AAB71833.1	AF008568	Petroselinum crispum	BAA07664.1	D42065	Nicotiana tabacum
AAA33858.1	M62757	Populus deltoides	BAA96643.1	AP002482	Oryza sativa
AAA73483.1	U27348	Nicotiana tabacum	CAA71491.1	Y10465	Spinacia oleracea
BAA21726.1	AB006187	Cicer arietinum	BAA94962.1	AB042103	Asparagus officinalis
CAA59508.1	X85252	Hordeum vulgare	BAA03911.1	D16442	Oryza sativa
BAA08531.1	D49655		AAA32676.1	M37637	Arachis hypogaea
			CAA09881.1	AJ011939	Trifolium repens
SEQ ID NO. 2446		Spinacia oleracea	CAA71488.1	Y10462	Spinacia oleracea
CAA76376.1	Y16778	Glycine max	AAB02926.1	U59284	Linum usitatissimum
AAD11483.1	U51193	Glycine max	AAC49819.1	AF014468	Oryza sativa
AAD11484.1	U51194	Scutellaria baicalensis	CAA62615.1	X91232	Mercurialis annua
BAA77387.1	AB024437	Oryza sativa	AAC49821.1	AF014470	Oryza sativa
BAA03644.1	D14997				

AAB67737.1	L77080	Stylosanthes humilis	BAA83472.1	AB004648	Oryza sativa
CAA71496.1	Y10470	Spinacia oleracea	CAA56844.1	X80876	Oryza sativa
			AAD28476.1	AF133838	Sandersonia aurantiaca
SEQ ID NO. 2447			BAA83473.1	AB004819	Oryza sativa
AAB71887.1	AF020791	Hordeum vulgare	AAK27968.1	AF242372	Ipomoea batatas
BAA05101.1	D26105	Hordeum vulgare	CAA84378.1	Z34895	Vicia sativa
BAA05102.1	D26106	Cucumis sativus	AAC35211.1	U12637	Hemerocallis hybrid cultiv.
BAB20760.1	AB037113	Cucumis sativus	AAD28477.1	AF133839	Sandersonia aurantiaca
BAA22284.1	AB007120	Oryza sativa	BAA11170.1	D76415	Oryza sativa
CAA06705.1	AJ005802	Solanum tuberosum	AAD20453.1	AF099203	Oryza sativa
AAK16728.1	AF332962	Chlamydomonas reinhardtii	CAB38314.1	AJ131995	Carica papaya
AAK16729.1	AF332963	Polytomella sp. 'Pringsheim	AAD53012.1	AF089849	Brassica napus
198.80'			AAB37233.1	U34747	Phalaenopsis sp. SM9108
AAC84139.1	AF101426	Cichorium intybus			
SEQ ID NO. 2448			SEQ ID NO. 2454		
AAA16209.1	M95747	Triticum aestivum	CAB55395.1	AL117264	Oryza sativa
AAA74724.1	M95746	Triticum aestivum	BAA93021.1	AP001552	Oryza sativa
			BAA92501.1	AP001383	Oryza sativa
			AAA17740.1	U08285	Nicotiana tabacum
SEQ ID NO. 2449					
CAB17076.1	Z99954	Phaseolus vulgaris	SEQ ID NO. 2455		
BAA88898.1	AB020961	Zea mays	AAF87216.1	AF231351	Nicotiana tabacum
CAA05894.1	AJ003137	Lycopersicon esculentum	CAA67782.1	X99405	Nicotiana tabacum
AAD48496.1	AF172856	Lycopersicon esculentum	AAB69317.1	AF012861	Petroselinum crispum
CAB53515.1	AJ245924	Solanum tuberosum	CAB52708.1	AJ010712	Solanum tuberosum
AAB88263.1	AF019147	Zea mays	CAB52685.1	AJ132346	Dunaliella bioculata
CAB17074.1	Z99952	Phaseolus vulgaris	CAA04994.1	AJ001772	Nicotiana tabacum
CAA12118.1	AJ224766	Phaseolus vulgaris	CAA58775.1	X83923	Solanum tuberosum
AAB68374.1	U52970	Phaseolus vulgaris	CAA03941.1	AJ000184	Spinacia oleracea
AAA79915.1	U17135	Phaseolus vulgaris	CAA03939.1	AJ000182	Spinacia oleracea
CAA53377.1	X75749	Dianthus caryophyllus	CAA03940.1	AJ000183	Spinacia oleracea
CAB16317.1	Z99173	Vicia sativa	AAB41552.1	U18238	Medicago sativa subsp. sativa
AAC49455.1	U41902	Nicotiana tabacum	AAD11426.1	AF097663	Mesembryanthemum crystallinum
CAA57538.1	X82011	Pseudotsuga menziesii	AAB69319.1	AF012863	Petroselinum crispum
AAB41816.1	U44947	Cicer arietinum	CAA52442.1	X74421	Solanum tuberosum
AAB70820.2	AF019145	Pisum sativum	AAB69318.1	AF012862	Petroselinum crispum
AAB88262.1	AF019146	Zea mays	BAA97662.1	AB029454	Triticum aestivum
AAC62396.1	AF050756	Zea mays	BAA97663.1	AB029455	Triticum aestivum
CAB09699.1	Z97023	Ricinus communis	CAA04993.1	AJ001770	Nicotiana tabacum
CAB09697.1	Z97021	Hordeum vulgare	CAA04992.1	AJ001769	Nicotiana tabacum
AAD10337.1	U94591	Hordeum vulgare	BAA97664.1	AB029456	Triticum aestivum

AAG23802.1	AF260736	Cucurbita pepo	CAA52787.1	X74783	Lithospermum erythrorhizon
CAB66330.1	AJ279688	Betula pendula	AAD09278.1	U97683	Glycine max
BAA82155.1	AB011441	Triticum aestivum	AAG43469.1	AF196964	Bixa orellana
CAA06200.1	AJ004900	Glycine max	BAA09705.1	D63389	Cucumis sativus
			AAB47161.1	S82272	Gossypium barbadense
				/gene="3-hydroxy-3-methylglutaryl coenzy	
SEQ ID NO. 2456			reductase, .	This	
CAA48611.1	X68652	Raphanus sativus	AAA33359.1	M74799	Hevea brasiliensis
CAA48610.1	X68651	Raphanus sativus	AAC37432.1	L34825	Solanum tuberosum
AAC05089.1	AF038046	Gossypium hirsutum	AAC37434.1	L34827	Solanum tuberosum
AAA33108.1	M96068	Catharanthus roseus	AAC37431.1	L34823	Solanum tuberosum
AAB52551.1	U51985	Solanum tuberosum	AAC37433.1	L34826	Solanum tuberosum
AAB87727.1	U60452	Nicotiana tabacum	AAC37435.1	L34828	Solanum tuberosum
CRA70440.1	Y09238	Zea mays	AAC37436.1	L34829	Solanum tuberosum
CRA45181.1	X63649	Nicotiana sylvestris			
AAD28179.1	AF110383	Capsicum annuum	SEQ ID NO. 2459		Plastid Oryza sativa
AAB52552.1	U51986	Solanum tuberosum	CAA33932.1	X15901	
BAA93631.1	AB022690	Solanum tuberosum			
AAB62581.1	U68072	Lycopersicon esculentum	SEQ ID NO. 2460		
AAB69726.1	U72145	Camptotheca acuminata	CAA85362.1	Z36894	Solanum tuberosum
AAB53748.1	U95816	Oryza sativa	AAB88618.1	AF034947	Zea mays
BAB20771.1	AB041031	Solanum tuberosum	AAC78101.1	AF093629	Oryza sativa
AAB69727.1	U72146	Camptotheca acuminata	AAD46520.1	AF149116	Populus tremula x Populus
AAD47596.1	AF142473	Artemisia annua	tremuloides		
AAA34169.1	M63642	Lycopersicon esculentum	AAF27918.1	AF220202	Malus x domestica
AAA68966.1	U14625	Artemisia annua	CAA12415.1	AJ225172	Solanum tuberosum
AAA33358.1	M74798	Hevea brasiliensis	AAC50012.1	AF009675	Hordeum vulgare var. distichum
AAA68965.1	U14624	Artemisia annua	AAB82136.1	AF022733	Oryza sativa
AAD08820.1	U43961	Oryza sativa			
AAA33360.1	M74800	Hevea brasiliensis	SEQ ID NO. 2462		
CAA92821.1	Z68504	Oryza sativa	BAA83711.1	AB014484	Nicotiana tabacum
AAC05088.1	AF038045	Gossypium hirsutum	AAF37579.1	AF235958	Medicago sativa
AAC15475.1	AF034760	Tagetes erecta	CAA58117.1	X82943	Zea mays
AAC15476.1	AF034761	Tagetes erecta	CAA47868.1	X67599	Lycopersicon esculentum
CAA38469.1	X54659	Hevea brasiliensis	CAA47869.1	X67600	Lycopersicon peruvianum
CAA38467.1	X54657	Hevea brasiliensis	CAA47870.1	X67601	Lycopersicon peruvianum
AAD38873.1	AF110382	Oryza sativa	AAF74563.1	AF208544	Lycopersicon peruvianum
AAA33040.1	L10390	Camptotheca acuminata	CAA87080.1	Z46956	Glycine max
AAD03789.1	U43711	Morus alba	CAA87076.1	Z46952	Glycine max
AAC72378.1	AF096838	Solanum tuberosum	CAA39034.1	X55347	Lycopersicon peruvianum
AAB04043.1	L40938	Lycopersicon esculentum	BAA83710.1	AB014483	Nicotiana tabacum
CAA38468.1	X54658	Hevea brasiliensis			

CAA87077.1	Z46953	Glycine max	SEQ ID NO. 2474	Zea mays
CAA09301.1	AJ010644	Pisum sativum	AAG13663.1	Pisum sativum
CAA87079.1	Z46955	Glycine max	BAB39155.1	Oryza sativa
CAA87075.1	Z46951	Glycine max	BAA90816.1	Zea mays
CAA09300.1	AJ010643	Pisum sativum	AAC98090.1	Pisum sativum
			BAB39156.1	Oryza sativa
			AAC98091.1	
SEQ ID NO. 2463				
CAA50218.1	X70868	Cucurbita sp.	SEQ ID NO. 2475	Pisum sativum
CAA50217.1	X70867	Cucurbita sp.	CAA83655.1	Solanum tuberosum
CAA78100.1	Z12114	Zea mays	AAB02720.1	
AAA33450.1	I21007	Zea mays		
AAA33452.1	I21006	Zea mays		
AAA33451.1	I21008	Zea mays		
CAA77645.1	Z11546	Zea mays		
CAA78101.1	Z12115	Zea mays		
CAA81689.1	Z27165	Brassica napus	SEQ ID NO. 2479	Oryza sativa
AAB39827.1	U46136	Solanum tuberosum	AAB97366.1	
BAA92724.1	AP001389	Oryza sativa		
AAA66365.1	U21139	Chloroplast Pisum sativum		
AAA32980.1	M35600	Brassica napus	SEQ ID NO. 2485	Cucumis sativus
AAA32979.1	M35599	Brassica napus	BAA21089.1	Pisum sativum
CAA93139.1	Z68903	Secale cereale	CAA44786.1	Daucus carota
CAA81736.1	Z27222	Brassica napus	AAF20949.1	Vigna radiata
AAC68501.1	AF030515	Canavalia lineata	AAF89208.1	Pinus mugo
BAB16318.1	AB049590	Avicennia marina	AAC60560.2	Triticum aestivum
AAB39828.1	U46137	Solanum tuberosum	CAA54042.1	Marchantia paleacea
CAA89836.1	Z49766	Pseudotsuga menziesii	BAA31693.1	Avena sativa
CAA09989.1	AJ012318	Glycine max	CAA34913.1	Lycopersicon esculentum
			AAF82475.1	Pinus strobus
SEQ ID NO. 2467			AAB86734.1	Chlamydomonas reinhardtii
BAA85440.1	AP000616	Oryza sativa	AAB04951.1	Chloroplast Vigna radiata
CAB53493.1	AJ245900	Oryza sativa	AAD20020.1	Lycopersicon esculentum
			AAF82471.1	Pinus mugo
SEQ ID NO. 2468			AAC60561.2	Lycopersicon esculentum
AAD22518.1	AF001136	Pinus radiata	AAF82474.1	Pinus taeda
BAA33205.1	AB001887	Oryza sativa	AAB86728.1	Lycopersicon esculentum
AAC35496.1	AF052690	Raphanus sativus	AAF82473.1	Lycopersicon esculentum
BAA33204.1	AB001886	Oryza sativa	AAF82472.1	Lycopersicon esculentum
BAA33200.1	AB001882	Oryza sativa	AAB86733.1	Pinus strobus
BAA33206.1	AB001888	Oryza sativa	AAC78100.1	Oryza sativa
BAA33202.1	AB001884	Oryza sativa	AAB05205.1	Medicago truncatula
			AAB05206.1	Medicago truncatula
			BAA83744.1	Cucumis sativus

SEQ ID NO. 2487 AAD00829.1 U96736	Selaginella lepidophylla	BAA25197.1 AB012138 AAD43972.1 AF141879	Lycopersicon esculentum Oryza sativa
SEQ ID NO. 2489		SEQ ID NO. 2495	
AAA86365.1 U21743	Brassica napus	AAB63262.1 U82815	Zea mays
CAC34417.1 AJ311624	Pisum sativum	AAF68624.1 AF254072	Zea mays
BAB17848.1 AB015593	Oryza sativa	AAC61674.1 AF026917	Zea mays
AAC04836.1 AF032975	Oryza sativa	AAF68625.1 AF254073	Zea mays
BAA74702.1 AB010876	Oryza sativa		
AAC05682.1 AF051156	Oryza sativa	SEQ ID NO. 2501	
CAB77393.1 AJ276491	Phaseolus vulgaris	AAG09635.1 AY007281	Medicago truncatula
CAA75907.1 Y15962	Hordeum vulgare	AAD30548.1 AF136579	Lycopersicon esculentum
BAA08266.1 D45425	Ipomoea nil	AAF97509.1 AF246266	Lycopersicon esculentum
AAK28807.1 AF310960	Linum usitatissimum	AAC17441.1 AF065444	Pisum sativum
AAG36666.1 AF310017	Beta vulgaris	AAF61374.1 AF133267	Thlaspi caerulescens
AAG36667.1 AF310018	Beta vulgaris	AAF97510.1 AF246266	Lycopersicon esculentum
AAG36665.1 AF310016	Beta vulgaris	AAD30549.1 AF136580	Lycopersicon esculentum
CAA11031.1 AJ222979	Pisum sativum		
AAC04835.1 AF032974	Oryza sativa	SEQ ID NO. 2503	
BAB39965.1 AP003018	Oryza sativa	CAB82852.1 Z30329	Mesembryanthemum crystallinum
BAB39980.1 AP003020	Oryza sativa	BAB18104.1 AB042714	Chlamydomonas reinhardtii
CAB55394.1 AL117264	Oryza sativa	BAB18105.1 AB042715	Chlamydomonas reinhardtii
BAA86880.1 AB028454	Barbula unguiculata	BAA83689.1 AB011968	Oryza sativa
AAF03355.1 AF132671	Nicotiana plumbaginifolia	BAA83688.1 AB011967	Oryza sativa
AAC99473.1 AF039201	Pinus caribaea	AAF22219.1 AF141378	Zea mays
AAC05146.1 AF049065	Pinus radiata	CAA73067.1 Y12464	Sorghum bicolor
AAC25777.1 AF072694	Oryza sativa	BAA96628.1 AP002482	Oryza sativa
AAA20245.1 U01963	Hordeum vulgare	CAA89202.1 Z49233	Chlamydomonas eugametos
BAA78563.1 AB024338	Atriplex lentiformis	CAA73068.1 Y12465	Sorghum bicolor
AAA34268.1 M21962	Triticum aestivum	BAA34675.1 AB011670	Triticum aestivum
AAA34270.1 M63223	Triticum aestivum	AAF06970.1 AF162662	Kalanchoe fedtschenkoi
AAA33030.1 M93041	Mesembryanthemum crystallinum	AAF06969.1 AF162661	Kalanchoe fedtschenkoi
CAA71052.1 Y09917	Triticum aestivum	CAA39936.1 X56599	Daucus carota
CAB65371.1 AJ250834	Pisum sativum	BAA90814.1 AP001168	Oryza sativa
CAB65370.1 AJ250833	Pisum sativum	AAB62693.1 AF004947	Oryza sativa
AAA34271.1 M63224	Triticum aestivum	CAA71142.1 Y10036	Cucumis sativus
CAB65369.1 AJ250832	Pisum sativum	BAA05649.1 D26602	Nicotiana tabacum
AAC78470.1 AF067731	Solanum tuberosum	AAC25423.1 AF072908	Nicotiana tabacum
AAC04832.1 AF032971	Oryza sativa	AAF19403.1 AF203481	Lycopersicon esculentum
CAA71050.1 Y09915	Triticum aestivum	AAF21062.1 AF216527	Dunaliella tertiolecta
AAC04833.1 AF032972	Oryza sativa	AAF19402.1 AF203480	Lycopersicon esculentum





AAB08791.1	U40042	Hordeum vulgare	BAA96421.1	AB044084	Triticum aestivum
CAA44861.1	X63176	Zea mays	CAB40189.1	AJ133638	Avena sativa
AAA33518.1	M60171	Zea mays	CAA67575.1	X99134	Lycopersicon esculentum
AAB84298.1	AF030548	Oryza sativa	CAA78387.1	Z13997	Petunia x hybrida
BAA92148.1	AB038515	Chlorella ellipsoidea	CAA66952.1	X98308	Lycopersicon esculentum
AAB36609.1	U37794	Eucalyptus globulus subsp.	CAA78388.1	Z13998	Petunia x hybrida
bicostata			CAA72218.1	Y11415	Oryza sativa
CAA48928.1	X69184	Anemia phyllitidis	BAA81736.1	AB029165	Glycine max
AAD11425.1	AF097662	Mesembryanthemum crystallinum	BAA81733.2	AB029162	Glycine max
CAB76917.1	AJ276012	Hordeum vulgare	BAA88224.1	AB028652	Nicotiana tabacum
CAA52158.1	X73980	Zea mays	BAA23341.1	D88621	Oryza sativa
BAA82638.1	D63137	Zinnia elegans	CAA50223.1	X70878	Hordeum vulgare
CAA38614.1	X54845	Pisum sativum	BAA88222.1	AB028650	Nicotiana tabacum
AAB64308.1	U63927	Daucus carota	CAA50226.1	X70881	Hordeum vulgare
AAA20186.1	L10633	Zea mays	CAA72217.1	Y11414	Oryza sativa
SEQ ID NO. 2511			BAA88221.1	AB028649	Nicotiana tabacum
AAC32114.1	AF051209	Picea mariana	AB41101.1	U72762	Nicotiana tabacum
SEQ ID NO. 2514			BAA88223.1	AB028651	Nicotiana tabacum
BAA84780.1	AB018444	Oryza sativa	BAB40790.1	AB058642	Lilium hybrid division I
BAA84779.1	AB018443	Oryza sativa	AAG28526.1	AF198499	Nicotiana tabacum
SEQ ID NO. 2515			AAG28525.1	AF198498	Nicotiana tabacum
BAA85438.1	AP000616	Oryza sativa	CAA72187.1	Y11352	Oryza sativa
AAG43550.1	AF211532	Nicotiana tabacum	CAA78386.1	Z13996	Petunia x hybrida
BAA90357.1	AP001080	Oryza sativa	BAA81730.1	AB029159	Glycine max
SEQ ID NO. 2516			BAA81731.1	AB029160	Glycine max
AAF67053.1	AF190304	Adiantum raddianum	SEQ ID NO. 2518		
AAF67052.1	AF190303	Adiantum raddianum	CAA62476.1	X90990	Solanum tuberosum
AAF67051.1	AF190302	Secale cereale	AAF66637.1	AF143505	Lycopersicon esculentum
AAF67050.1	AF190301	Secale cereale	CAA66616.1	X97980	Solanum berthaultii
AAG08959.1	AF122051	Solanum tuberosum	BAA96593.1	AP002481	Oryza sativa
AAG08960.1	AF122052	Solanum tuberosum	AAA50304.1	M92989	Pisum sativum
AAG08961.1	AF122053	Solanum tuberosum	CAA82993.1	Z30332	Spinacia oleracea
AAF34434.1	AF172282	Oryza sativa	CAA82994.1	Z30333	Mesembryanthemum crystallinum
CAA67000.1	X98355	Oryza sativa	CAA82992.1	Z30331	Mesembryanthemum crystallinum
AAG22863.1	AY008692	Hordeum vulgare	CAB82852.1	Z30329	Mesembryanthemum crystallinum
CAA61021.1	X87690	Hordeum vulgare	CAA50374.1	X71057	Nicotiana tabacum
AAD31395.1	AF114162	Lolium temulentum	CAA82991.1	Z30330	Spinacia oleracea
			AAD50585.1	AF089099	Salvia columbariae
			AAD50584.1	AF089097	Salvia columbariae
			BAB03409.1	AP002816	Oryza sativa

AAB93859.1	U89678	Lycopersicon esculentum	AAC04837.1	AF032976	Oryza sativa
AAD50586.1	AF089100	Salvia columbariae	AAD43972.1	AF141879	Oryza sativa
AAD50587.1	AF089101	Salvia columbariae	AAG00427.1	AF250935	Hordeum vulgare
AAB93861.1	U89680	Lycopersicon esculentum	AAG00426.1	AF250934	Hordeum vulgare
AAB93860.1	U89679	Lycopersicon esculentum	BAA86880.1	AB028454	Barbula unguiculata
AAD50588.1	AF089102	Salvia columbariae	AAC25777.1	AF072694	Oryza sativa
AAD50589.1	AF089103	Salvia columbariae	BAA78563.1	AB024338	Atriplex lentiformis
AAB93862.1	U89681	Lycopersicon esculentum	AAA34270.1	M63223	Triticum aestivum
AAB93863.1	U89682	Lycopersicon esculentum	AAC04834.1	AF032973	Oryza sativa
			AAA34268.1	M21962	Triticum aestivum
SEQ ID NO. 2521		Plastid Oryza sativa	AAG00428.1	AF250936	Hordeum vulgare
CAA33924.1	X15901		AAA20245.1	U01963	Hordeum vulgare
			AAA34271.1	M63224	Triticum aestivum
SEQ ID NO. 2522			AAG00429.1	AF250937	Hordeum vulgare
BAA01181.1	D10335	Oryza sativa	AAC99473.1	AF039201	Pinus caribaea
BAA01180.1	D10334	Oryza sativa	CAA71052.1	Y09917	Triticum aestivum
BAA94761.1	AB041773	Oryza sativa	AAA33030.1	M93041	Mesembryanthemum crystallinum
AAB68604.1	U82330	Prunus armeniaca	AAC05146.1	AF049065	Pinus radiata
AAF23372.1	AF187063	Oryza sativa	CAB65371.1	AJ250834	Pisum sativum
AAF23371.1	AF187062	Oryza sativa	CAB65370.1	AJ250833	Pisum sativum
AAD41679.1	AF086603	Ceratopteris richardii	CAA71050.1	Y09915	Triticum aestivum
BAA85443.1	AP000616	Oryza sativa	CAC34417.1	AJ311624	Pisum sativum
			AAA86365.1	U21743	Brassica napus
SEQ ID NO. 2523			SEQ ID NO. 2524		
CAB65369.1	AJ250832	Pisum sativum	CAA90681.1	Z50801	Zea mays
AAF03355.1	AF132671	Nicotiana glauca	AAC14566.1	AF058796	Oryza sativa
AAC78470.1	AF067731	Solanum tuberosum	AAD27878.1	AF139466	Vigna radiata
BAB39965.1	AP003018	Oryza sativa	CAA45523.1	X64198	Nicotiana tabacum
BAB39980.1	AP003020	Oryza sativa	AAA34140.1	M17633	Lycopersicon esculentum
AAC04835.1	AF032974	Oryza sativa	AAF23819.1	AF218305	Hordeum vulgare
BAA25197.1	AB012138	Lycopersicon esculentum	AAA34186.1	J03558	Lycopersicon esculentum
AAC04833.1	AF032972	Oryza sativa	CAA41404.1	X58514	Pinus sylvestris
AAC04832.1	AF032971	Oryza sativa	CAA41405.1	X58515	Pinus sylvestris
CAB55394.1	AL117264	Oryza sativa	AAC67558.1	AF094776	Oryza sativa
AAB97470.1	AF042489	Oryza sativa	CAA65042.1	X95727	Brassica juncea
CAB55558.1	AJ237942	Triticum aestivum	AAF44702.1	AF241524	Asarina barclaiana
AAG00425.1	AF250933	Hordeum vulgare	AAA64415.1	U23189	Zea mays
CAA63659.1	X93171	Hordeum vulgare	AAA64414.1	U23188	Zea mays
CAB55559.1	AJ237943	Triticum aestivum	AAG28464.1	AF195794	Chlamydomonas reinhardtii
AAD43973.1	AF141880	Oryza sativa	CAA44777.1	X63052	Hordeum vulgare
AAD43971.1	AF141878	Oryza sativa			



AAA91022.1	U27081	Linum usitatissimum	CAA10175.1	AJ012798	Lycopersicon esculentum
AAG09954.1	AF175399	Glycine max	AAC77377.1	AF064786	Carica papaya
AAD25973.1	AF093646	Linum usitatissimum	CAA54525.1	X77319	Asparagus officinalis
CAC35327.1	AJ310152	Linum usitatissimum	AAC25984.1	AF020390	Lycopersicon esculentum
AAD25976.1	AF093649	Linum usitatissimum	CAA10173.1	AJ012796	Lycopersicon esculentum
AAG01051.1	AF175394	Glycine max	AAF70822.1	AF154421	Lycopersicon esculentum
CAC35336.1	AJ310161	Linum usitatissimum	CAA07236.1	AJ006771	Cicer arietinum
CAC35332.1	AJ310157	Linum usitatissimum	AAG12249.1	AF184080	Prunus armeniaca
CAC35328.1	AJ310153	Linum usitatissimum	CAA10064.1	AJ012578	Carica papaya
CAC35325.1	AJ310150	Linum usitatissimum	CAA06310.1	AJ005043	Cicer arietinum
AAK28810.1	AF310964	Linum usitatissimum	AAC28739.1	AF079874	Carica papaya
CAC35330.1	AJ310155	Linum usitatissimum	AAD45349.1	AF159124	Vitis vinifera
AAK28812.1	AF310968	Linum usitatissimum	SEQ ID NO. 2537		Chloroplast Nephroselmis
CAC35326.1	AJ310151	Linum usitatissimum	AAD54821.1	AF137379	
CAC35339.1	AJ310164	Linum usitatissimum	olivacea		
CAC35321.1	AJ310150	Linum usitatissimum	AAF43860.1	AF166114	Chloroplast Mesostigma viride
CAC35337.1	AJ310162	Linum usitatissimum	AAAI8546.1	M94204	Nicotiana tabacum
CAC35329.1	AJ310154	Linum usitatissimum	CAA74893.1	Y14561	Pisum sativum
CAC35334.1	AJ310159	Linum usitatissimum	AAK08141.1	AF234537	Pelargonium graveolens
CAC35338.1	AJ310163	Linum usitatissimum	AAF15312.1	AF145053	Oryza sativa
CAC35333.1	AJ310158	Linum usitatissimum	AAG32661.1	AF264877	Zea mays
AAK28806.1	AF310960	Linum usitatissimum	CAA75382.1	Y15108	Glycine max
AAK28811.1	AF310966	Linum usitatissimum	SEQ ID NO. 2539		
AAK28809.1	AF310962	Linum usitatissimum	BAA07280.1	D38091	Triticum aestivum
AAK28803.1	AF310958	Linum usitatissimum	BAA07278.1	D38089	Triticum aestivum
AAK28804.1	AF310959	Linum usitatissimum	CAA64356.1	X94693	Triticum aestivum
AAK28808.1	AF310961	Linum usitatissimum	AAB66346.1	AF013803	Pinus taeda
AAK28805.1	AF310960	Linum usitatissimum	CAA48030.1	X67819	Picea abies
SEQ ID NO. 2536		Vigna radiata	AAA34249.1	M31922	Volvox carteri
AAF67342.1	AF229795	Vigna radiata	AAA34247.1	M31921	Volvox carteri
AAF67341.1	AF229794	Pyrus pyrifolia	AAA98453.1	U16726	Chlamydomonas reinhardtii
BAB21492.1	AB046543	Cicer arietinum	CAA07234.1	AJ006768	Cicer arietinum
CAA10128.1	AJ012687	Lycopersicon esculentum	AAA98451.1	U16725	Chlamydomonas reinhardtii
CAA10174.1	AJ012797	Lycopersicon esculentum	AAA98447.1	U16724	Chlamydomonas reinhardtii
AAF21626.1	AF023847	Lycopersicon esculentum	AAF65769.1	AF242311	Euphorbia esula
CAA09457.1	AJ011010	Cicer arietinum	AAB04687.1	U08225	Zea mays
CAA59162.1	X84684	Brassica oleracea	CAA37828.1	X53831	Petroselinum crispum
CAA06309.1	AJ005042	Cicer arietinum	BAA85117.1	AB018242	Solanum melongena
AAF70821.1	AF154420	Lycopersicon esculentum	BAA07276.1	D38087	Triticum aestivum
AAB61470.1	AF004812	Mangifera indica			

BAA07279.1	D38090	Triticum aestivum	AAF63027.1	AF244924	Spinacia oleracea
BAA07277.1	D38088	Triticum aestivum	AAF63026.1	AF244923	Spinacia oleracea
AAA86947.1	U10041	Pisum sativum	BAA94962.1	AB042103	Asparagus officinalis
CAA64423.1	X94973	Triticum aestivum	BAA92500.1	AP001383	Oryza sativa
CAB53509.1	AJ245999	Brassica napus	AAF63025.1	AF244922	Spinacia oleracea
CAA65069.1	X95763	Allium cepa	CRA62615.1	X91232	Mercurialis annua
AAF07182.1	AF193345	Oryza sativa	BAA92422.1	AP001366	Oryza sativa
BAA96096.1	AB003781	Lilium longiflorum	BAA92497.1	AP001383	Oryza sativa
BAA96097.1	AB003782	Lilium longiflorum	CAB65334.1	AJ250121	Picea abies
CAB40356.1	AJ010974	Lilium longiflorum	CAB66037.1	X97351	Populus balsamifera subsp. trichocarpa
SEQ ID NO. 2541			AAD43561.1	AF155124	Gossypium hirsutum
AAD26942.1	AF119050	Datisca glomerata	BAA82306.1	AB027752	Nicotiana tabacum
BAA05079.1	D26086	Petunia x hybrida	BAA06335.1	D30653	Populus kitakamiensis
AAC06243.1	AF053077	Nicotiana tabacum	CAA62226.1	X90693	Medicago sativa
BAR05077.1	D26084	Petunia x hybrida	CAB94692.1	AJ242742	Ipomoea batatas
BAR05076.1	D26083	Petunia x hybrida	AAD37430.1	AF149280	Phaseolus vulgaris
AAB53260.1	U76554	Brassica rapa	CAA62227.1	X90694	Medicago sativa
BAA05078.1	D26085	Petunia x hybrida	BAA07241.1	D38051	Populus kitakamiensis
AAB53261.1	U76555	Brassica rapa	BAA77389.1	AB024439	Scutellaria baicalensis
AAK01713.1	AF332876	Oryza sativa	BAA14143.1	D90115	Armoreria rusticana
BAA21920.1	AB006598	Petunia x hybrida	BAA06334.1	D30652	Populus kitakamiensis
BAA21922.1	AB006600	Petunia x hybrida	CAA71492.1	Y10466	Spinacia oleracea
BAA19112.1	AB000453	Petunia x hybrida	AAB02554.1	L37790	Stylosanthes humilis
BAA21927.1	AB006605	Petunia x hybrida	AAD37427.1	AF149277	Phaseolus vulgaris
BAA96071.1	AB035133	Petunia x hybrida	CAA66034.1	X97348	Populus balsamifera subsp. trichocarpa
BAA96070.1	AB035132	Petunia x hybrida	AAB97734.1	AF014502	Glycine max
BAA21919.1	AB006597	Petunia x hybrida	AAC05277.1	AF049881	Linum usitatissimum
BAA19114.1	AB000455	Petunia x hybrida	AAC49819.1	AF014468	Oryza sativa
BAA21921.1	AB006599	Petunia x hybrida	AAC98519.1	AF007211	Glycine max
BAA21928.1	AB006606	Petunia x hybrida	BAA11853.1	D83225	Populus nigra
BAA21925.1	AB006603	Petunia x hybrida	CAA59487.1	X85230	Triticum aestivum
BAA19111.1	AB000452	Petunia x hybrida	AAB41811.1	L36157	Medicago sativa
BAA19926.1	AB000456	Petunia x hybrida	BAA11852.1	D83224	Populus nigra
BAA21924.1	AB006602	Petunia x hybrida	CAA59485.1	X85228	Triticum aestivum
BAA21923.1	AB006601	Petunia x hybrida	CAA66036.1	X97350	Populus balsamifera subsp. trichocarpa
BAA21926.1	AB006604	Petunia x hybrida	CAA62225.1	X90692	Medicago sativa
BAA19110.1	AB000451	Petunia x hybrida	AAB41810.1	L36156	Medicago sativa
BAA19113.1	AB000454	Petunia x hybrida			

CAA66035.1	X97349	Populus balsamifera subsp. trichocarpa	CAB55395.1	AL117264	Oryza sativa
AAB48986.1	U16727	Medicago truncatula	SEQ ID NO. 2550		
CAA62597.1	X91172	Raphanus sativus	BAB41080.1	AB052729	Pisum sativum
AAB47602.1	L07554	Linum usitatissimum	AAA34054.1	M96432	Nicotiana tabacum
CAB99487.1	AJ276227	Hordeum vulgare	AAA34085.1	M93436	Nicotiana tabacum
CAA37713.1	X53675	Triticum aestivum	SEQ ID NO. 2551		
BAA03911.1	D16442	Oryza sativa	CAA10494.1	AJ131733	Pseudotsuga menziesii
AAC49821.1	AF014470	Oryza sativa	AAA64427.1	L29077	Pisum sativum
BAA14144.1	D90116	Armoracia rusticana	AAA34125.1	L23762	Lycopersicon esculentum
AAA34108.1	J02979	Nicotiana tabacum	AAB88617.1	AF034946	Zea mays
SEQ ID NO. 2546			AAD51109.1	AF176040	Mesembryanthemum crystallinum
AAF98368.1	AF158027	Nicotiana tabacum	CAA51821.1	X73419	Lycopersicon esculentum
AAD22170.1	AF061282	Sorghum bicolor	AAC12662.1	AF032468	Zea mays
AAD22169.1	AF061282	Sorghum bicolor	CAA05772.1	AJ002959	Zea mays
AAF98369.1	AF158253	Nicotiana tabacum	BAA90392.1	AP001081	Oryza sativa
AA73328.1	Y12793	Cucumis sativus	BAB40310.1	AB026055	Nicotiana tabacum
AAK27797.1	AF318315	Vigna unguiculata	AAF73016.1	AF262934	Avicennia marina
AAK18751.1	AF193067	Vigna unguiculata	BAB40311.1	AB026056	Nicotiana tabacum
AAD22149.1	AF061282	Sorghum bicolor	AAA34310.1	M62720	Triticum aestivum
AAB08428.1	U68484	Nicotiana tabacum	AA02168.1	U15971	Oryza sativa
CAA11041.1	AJ223038	Hevea brasiliensis	AAD42941.1	AF091621	Catharanthus roseus
CAA11042.1	AJ223039	Hevea brasiliensis	AAA86089.1	U17250	Brassica oleracea
CAA27571.1	X03932	Solanum tuberosum	CAA58111.1	X62938	Lycopersicon esculentum
CAA25592.1	X01125	Solanum tuberosum	AAB63513.1	AF008910	Prunus armeniaca
AAA66198.1	U09331	Solanum brevifolius	BAA21006.1	D17786	Oryza sativa
CAA27588.1	X03956	Solanum tuberosum	AAF22280.1	AF165420	Mesembryanthemum crystallinum
AAA33819.1	M18880	Solanum tuberosum	AAC32141.1	AF051240	Picea mariana
CAA31576.1	X13179	Solanum tuberosum	SEQ ID NO. 2552		
AAA33828.1	M21879	Solanum tuberosum	AAG43405.1	AF172931	Picea abies
CAA31575.1	X13178	Solanum tuberosum	AAB37230.1	U34743	Phalaenopsis sp. SM9108
CAA81735.1	Z27221	Solanum tuberosum	CAB51059.1	Y17898	Zea mays
AAB08427.1	U68483	Nicotiana tabacum	AAK19610.1	AF336277	Gossypium hirsutum
AAF98370.1	AF158254	Nicotiana tabacum	AAD38144.1	AF139497	Prunus armeniaca
AAK19055.1	AF151219	Solanum tuberosum	AAA63768.2	AF339748	Helianthus annuus
SEQ ID NO. 2547			CAA64491.1	X95193	Pimpinella brachycarpa
AAA17740.1	U08285	Nicotiana tabacum	CAA64221.1	X94449	Pimpinella brachycarpa
BAA93021.1	AP001552	Oryza sativa	CAA64152.1	X94375	Pimpinella brachycarpa
BAA92501.1	AP001383	Oryza sativa	BAA93462.1	AB028074	Physcomitrella patens





AAG32468.1	AF308589	Ceratopteris richardii	CAB08441.1	Z95153	Helianthus annuus
CAA72183.1	Y11348	Medicago sativa	CAA42222.1	X59701	Helianthus annuus
AAG32467.1	AF308588	Ceratopteris richardii	BAA33062.1	AB017273	Cuscuta japonica
CAA06492.1	AJ005347	Cicer arietinum	AAB63310.1	U46544	Helianthus annuus
AAA73894.1	L41393	Malus x domestica	AAF34133.1	AF161179	Malus x domestica
			AAA33671.1	M33900	Pisum sativum
			AAB72109.1	AF022217	Brassica rapa
SEQ ID NO. 2557			AAB63311.1	U46545	Helianthus annuus
AAC79430.1	AF067961	Malus x domestica	CAA41546.1	X58710	Medicago sativa
AAF01765.1	AF184278	Glycine max	AAD49336.1	AF166277	Nicotiana tabacum
AAD37698.1	AF145729	Oryza sativa	AAC39360.1	U63631	Fragaria x ananassa
AAD37695.1	AF145726	Oryza sativa	CAA37848.1	X53852	Daucus carota
BAA93466.1	AB028078	Physcomitrella patens	AAA61632.1	U08601	Papaver somniferum
CAA64491.1	X95193	Pimpinella brachycarpa	CAA63903.1	X94193	Pennisetum glaucum
CAA64152.1	X94375	Pimpinella brachycarpa	CAA37864.1	X53870	Chenopodium rubrum
BAA93467.1	AB028079	Physcomitrella patens	CAB36910.1	AJ000691	Quercus suber
AAK31270.1	AC079890	Oryza sativa	AAA33910.1	M80939	Oryza sativa
AAF19980.1	AF211193	Oryza sativa	CAA08908.1	AJ009880	Castanea sativa
CAA06728.1	AJ005833	Craterostigma plantagineum	AAA33909.1	M80938	Oryza sativa
CAA65456.2	X96681	Oryza sativa	CAA43210.1	X60820	Oryza sativa
BAA05625.1	D26576	Daucus carota	AAC78392.1	U83669	Oryza sativa
BAA93462.1	AB028074	Physcomitrella patens	CAA63902.1	X94192	Pennisetum glaucum
AAD37700.1	AF145731	Oryza sativa	BAA02160.1	D12635	Oryza sativa
CAB67118.1	Y17306	Lycopersicon esculentum	CAA63901.1	X94191	Pennisetum glaucum
BAA93464.1	AB028076	Physcomitrella patens	CAA46641.1	X65725	Zea mays
BAA21017.1	D26578	Daucus carota	AAB39856.1	U81385	Oryza sativa
CAA64221.1	X94449	Pimpinella brachycarpa	CAA63570.1	X92983	Pseudotsuga menziesii
BAA93463.1	AB028075	Physcomitrella patens	AAC78394.1	U83671	Oryza sativa
			CAA63571.1	X92984	Pseudotsuga menziesii
			AAC78393.1	U83670	Oryza sativa
			CAA31785.1	X13431	Triticum aestivum
SEQ ID NO. 2558			SEQ ID NO. 2559		
AAB03893.1	M11318	Glycine max	AAD37427.1	AF149277	Phaseolus vulgaris
CAA41547.1	X58711	Medicago sativa	BAA94962.1	AB042103	Asparagus officinalis
AAD30454.1	AF123257	Lycopersicon esculentum	BAA77388.1	AB024438	Scutellaria baicalensis
CAA25578.1	X01104	Glycine max	BAA92500.1	AP001383	Oryza sativa
AAA33975.1	M11395	Glycine max	CAA66037.1	X97351	Populus balsamifera subsp.
AAD30452.1	AF123255	Lycopersicon esculentum	trichocarpa		
AAA33672.1	M33899	Pisum sativum	BAA82306.1	AB027752	Nicotiana tabacum
CAA39603.1	X56138	Lycopersicon esculentum	BAA92497.1	AP001383	Oryza sativa
AAD30453.1	AF123256	Lycopersicon esculentum			
AAA33974.1	M11317	Glycine max			
CAA37847.1	X53851	Daucus carota			
CAB55634.2	AJ237596	Helianthus annuus			

BAA92422.1	AP001366	Oryza sativa	CAA62597.1	X91172	Raphanus sativus
AAC98519.1	AF007211	Glycine max	CAA71492.1	Y10466	Spinacia oleracea
BAA11853.1	D83225	Populus nigra			
CAA62227.1	X90694	Medicago sativa	SEQ ID NO. 2560		Nicotiana sylvestris
AAF63027.1	AF244924	Spinacia oleracea	BAA03763.1	D16247	Pisum sativum
AAC49819.1	AF014468	Oryza sativa	AAF75791.1	AF271892	Vigna radiata
CAA62226.1	X90693	Medicago sativa	AAF40306.1	AF156667	Spinacia oleracea
AAF63025.1	AF244922	Spinacia oleracea	CAA68193.1	X99937	Zea mays
BAA77389.1	AB024439	Scutellaria baicalensis	AAD20980.1	AF079782	Oryza sativa
AAB48184.1	L24120	Linum usitatissimum	BAA95705.1	AB042644	Oryza sativa
CAA62615.1	X91232	Mercurialis annua	BAA95704.1	AB042643	Oryza sativa
AAB06183.1	M37636	Arachis hypogaea			
AAD43561.1	AF155124	Gossypium hirsutum	SEQ ID NO. 2561		Hordeum vulgare
AAB02554.1	L37790	Stylosanthes humilis	AAF36491.1	AF129479	Phragmites australis
CAB94692.1	AJ242742	Ipomoea batatas	BAB32442.1	AB055629	Phragmites australis
AAF63026.1	AF244923	Spinacia oleracea	BAB32445.1	AB055632	Phragmites australis
CAR40796.1	X57564	Armoracia rusticana	BAB32443.1	AB055630	Phragmites australis
CAA71491.1	Y10465	Spinacia oleracea	BAB32444.1	AB055631	Oryza sativa
CAB65334.1	AJ250121	Picea abies	AAF36497.1	AF129485	Hordeum vulgare
CAA59487.1	X85230	Triticum aestivum	AAF36496.1	AF129484	Hordeum vulgare
AA34050.1	M74103	Nicotiana sylvestris	CAC15061.1	AJ300161	Hordeum vulgare
AAC49821.1	AF014470	Oryza sativa	AAF36492.1	AF129480	Hordeum vulgare
BAA03911.1	D16442	Oryza sativa			
CAA66034.1	X97348	Populus balsamifera subsp.	SEQ ID NO. 2564		Oryza sativa
trichocarpa			BAA92965.1	AP001551	
BAA06335.1	D30653	Populus kitakamiensis			
AAB97734.1	AF014502	Glycine max	SEQ ID NO. 2569		Phaseolus vulgaris
CAA71493.1	Y10467	Spinacia oleracea	AAD21872.1	AF078082	Ipomoea trifida
AAB41810.1	L36156	Medicago sativa	AAC23542.1	U20948	Brassica oleracea
AAB97853.1	AF043234	Striga asiatica	CAA73134.1	Y12531	Brassica oleracea
BAA92967.1	AP001551	Oryza sativa	CAB41879.1	Y18260	Brassica oleracea
AAB47602.1	L07554	Linum usitatissimum	CAA74661.1	Y14285	Brassica oleracea
BAA06334.1	D30652	Populus kitakamiensis	CAB41878.1	Y18259	Brassica oleracea
AAC49818.1	AF014467	Oryza sativa	AAB93834.1	U82481	Zea mays
BAA11852.1	D83224	Populus nigra	CAA73133.1	Y12530	Brassica oleracea
CAA66035.1	X97349	Populus balsamifera subsp.	CAA67145.1	X98520	Brassica oleracea
trichocarpa			AAA33000.1	M76647	Brassica oleracea
CAA62225.1	X90692	Medicago sativa	CAA74662.1	Y14286	Brassica oleracea
BAA14144.1	D90116	Armoracia rusticana	BAA23676.1	AB000970	Brassica rapa
BAA07241.1	D38051	Populus kitakamiensis	BAA92836.1	AB032473	Brassica oleracea
CAA46916.1	X66125	Oryza sativa	CAB89179.1	AJ245479	Brassica napus subsp. napus

AAA33008.1	M97667	Brassica napus	BAA92500.1	AP001383	Oryza sativa
CAA79355.1	Z18921	Brassica oleracea	CAA62228.1	X90695	Medicago sativa
BAA21132.1	D88193	Brassica rapa	CAA40796.1	X57564	Armoracia rusticana
AAA62232.1	U00443	Brassica napus	AAD43561.1	AF155124	Gossypium hirsutum
BAA06285.1	D30049	Brassica rapa	CAA62615.1	X91232	Mercurialis annua
BAA92837.1	AB032474	Brassica oleracea	AAA65637.1	L13654	Lycopersicon esculentum
BAA07576.1	D38563	Brassica rapa	BAA14143.1	D90115	Armoracia rusticana
BAA07577.2	D38564	Brassica rapa	BAA01877.1	D11102	Populus kitakamiensis
BAB21001.1	AB054061	Brassica rapa	AAF63025.1	AF244922	Spinacia oleracea
AAD52097.1	AF088885	Nicotiana tabacum	CAB94692.1	AJ242742	Ipomoea batatas
AAK21965.1	AY028699	Brassica napus	CAA76374.2	Y16776	Spinacia oleracea
AAA33915.1	L27821	Oryza sativa	AAB47602.1	L07554	Linum usitatissimum
BAA94509.1	AB041503	Populus nigra	AAB97734.1	AF014502	Glycine max
CAB51836.1	AJ243961	Oryza sativa	AAF63026.1	AF244923	Spinacia oleracea
AAG16628.1	AY007545	Brassica napus	CAB65334.1	AJ250121	Picea abies
BAA94510.1	AB041504	Populus nigra	AAA65636.1	L13653	Lycopersicon esculentum
AAG03090.1	AC073405	Oryza sativa	CAA66037.1	X97351	Populus balsamifera subsp.
			trichocarpa		
SEQ ID NO. 2570			BAA11853.1	D83225	Populus nigra
AAD11483.1	U51193	Glycine max	BAA01950.1	D11337	Vigna angularis
AAD11484.1	U51194	Glycine max	CAA80502.1	Z22920	Spirodela polyrrhiza
CAA76376.1	Y16778	Spinacia oleracea	AAA98491.1	L36981	Petroselinum crispum
CAC21393.1	AJ401276	Zea mays	CAA66034.1	X97348	Populus balsamifera subsp.
AAF63027.1	AF244924	Spinacia oleracea	trichocarpa		
AAA32676.1	M37637	Arachis hypogaea	CAC21391.1	AJ401274	Zea mays
CAA71495.1	Y10469	Spinacia oleracea	CAA71490.1	Y10464	Spinacia oleracea
BAA77387.1	AB024437	Scutellaria baicalensis			
BAA03644.1	D14997	Oryza sativa	SEQ ID NO. 2575		
BAA94962.1	AB042103	Asparagus officinalis	AAD17487.1	AF049347	Berberis stolonifera
CAA09881.1	AJ011939	Trifolium repens	AAB20352.1	S65550	Eschscholzia californica
CAA64413.1	X94943	Lycopersicon esculentum	AAC39358.1	AF005655	Eschscholzia californica
AAF63024.1	AF244921	Spinacia oleracea	AAC61839.1	AF025430	Papaver somniferum
BAA07664.1	D42065	Nicotiana tabacum			
BAA07663.1	D42064	Nicotiana tabacum	SEQ ID NO. 2577		
AAD11482.1	U51192	Glycine max	BAA76896.1	AB022687	Lycopersicon esculentum
BAA92497.1	AP001383	Oryza sativa	AAF97517.1	AF250047	Zea mays
BAA92422.1	AP001366	Oryza sativa	BAA76895.1	AB022686	Lycopersicon esculentum
AAD11481.1	U51191	Glycine max			
AAB48986.1	U16727	Medicago truncatula	SEQ ID NO. 2578		
AAB67737.1	L77080	Stylosanthes humilis	AAD21872.1	AF078082	Phaseolus vulgaris
AAB41812.1	L36158	Medicago sativa	AAB93834.1	U82481	Zea mays

	CAB89179.1	AJ245479	Brassica napus subsp. napus
	CAA74661.1	Y14285	Brassica oleracea
	BAA23676.1	AB000970	Brassica rapa
	BAA06285.1	D30049	Brassica rapa
	BAA21132.1	D88193	Brassica rapa
	AAA62232.1	U00443	Brassica napus
	CAA79355.1	Z18921	Brassica oleracea
	CAA74662.1	Y14286	Brassica oleracea
	BAA92837.1	AB032474	Brassica oleracea
	BAA07577.2	D38564	Brassica rapa
	BAA07576.1	D38563	Brassica rapa
	BAB21001.1	AB054061	Brassica rapa
	AAD52097.1	AF088885	Nicotiana tabacum
	AAK21965.1	AY028699	Brassica napus
	AAG03090.1	AC073405	Oryza sativa
	AAA33915.1	L27821	Oryza sativa
	AAG16628.1	AY007545	Brassica napus
	BAA94510.1	AB041504	Populus nigra
	BAA94509.1	AB041503	Populus nigra
	CAA79324.1	Z18884	Brassica oleracea
	SEQ ID NO.	2580	
	AAB60276.1	U09989	Zea mays
	AAB41898.1	U84891	Mesembryanthemum crystallinum
	BAA08134.1	D45189	Zostera marina
	AAG28435.1	AF195028	Glycine max
	BAA06629.1	D31843	Oryza sativa
	AAD46188.1	AF156691	Nicotiana plumbaginifolia
	AAB84202.2	AF029256	Kosteletzkyia virginica
	CAB69823.1	AJ271438	Prunus persica
	CAC29436.1	AJ310524	Vicia faba
	CAH54045.1	X76535	Solanum tuberosum
	CAA47275.1	X66737	Nicotiana plumbaginifolia
	AABI7186.1	U72148	Lycopersicon esculentum
	AAB35314.2	S79323	Vicia faba
	BAA37150.1	AB022442	Vicia faba
	AAA34098.1	M80490	Nicotiana plumbaginifolia
	CAB69824.1	AJ271439	Prunus persica
	AAD46186.1	AF156679	Nicotiana plumbaginifolia
	AAA34094.1	M80489	Nicotiana plumbaginifolia
	BAA01058.1	D10207	Oryza sativa
	SEQ ID NO.	2579	
	AAD21872.1	AF078082	Phaseolus vulgaris
	CAA73134.1	Y12531	Brassica oleracea
	AAC23542.1	U20948	Ipomoea trifida
	AAB93834.1	U82481	Zea mays
	CAA73133.1	Y12530	Brassica oleracea
	CAA67145.1	X98520	Brassica oleracea
	CAB41879.1	Y18260	Brassica oleracea
	AAA33000.1	M76647	Brassica oleracea
	CAB41878.1	Y18259	Brassica oleracea
	BAA92836.1	AB032473	Brassica oleracea
	AAA33008.1	M97667	Brassica napus
	CAA73134.1	Y12531	Brassica oleracea
	AAC23542.1	U20948	Ipomoea trifida
	AAB93834.1	U82481	Zea mays
	CAA73133.1	Y12530	Brassica oleracea
	CAA67145.1	X98520	Brassica oleracea
	CAB41879.1	Y18260	Brassica oleracea
	AAA33000.1	M76647	Brassica oleracea
	CAB41878.1	Y18259	Brassica oleracea
	BAA92836.1	AB032473	Brassica oleracea
	AAA33008.1	M97667	Brassica napus

AAK31799.1	AY029190	Lilium longiflorum	BAA86059.1	AB014456	Pyrus pyrifolia
AAA34173.1	M60166	Lycopersicon esculentum	AAC49926.1	AF000975	Medicago sativa
CAC29435.1	AJ310523	Vicia faba	AAD38189.1	AF154917	Ocimum basilicum
AAF98344.1	AF275745	Lycopersicon esculentum	AAA18532.1	L14063	Zea mays
AAD55399.1	AF179442	Lycopersicon esculentum	AAC49928.1	U97125	Medicago sativa
CAA59800.1	X85805	Zea mays	AAC49927.1	AF000976	Medicago sativa
CAA54046.1	X76536	Solanum tuberosum	AAD38190.1	AF154918	Ocimum basilicum
AAA34052.1	M27888	Nicotiana plumbaginifolia	AAD29842.1	AF064694	Thalictrum tuberosum
CAA63790.1	X93592	Dunaliella bioculata	AAD29844.1	AF064696	Thalictrum tuberosum
AAB49042.1	U54690	Dunaliella acidophila	AAD29841.1	AF064693	Thalictrum tuberosum
CAA59799.1	X85804	Phaseolus vulgaris	AAC49856.1	U69554	Pisum sativum
BAA90510.2	AP001111	Oryza sativa	AAG43822.1	AF212316	Capsicum annuum
AAA34138.1	M96324	Lycopersicon esculentum	CAA52461.1	X74452	Nicotiana tabacum
AAD11617.1	AF050495	Lycopersicon esculentum	AAD29845.1	AF064697	Thalictrum tuberosum
CAA52107.1	X73901	Dunaliella bioculata	CAA52462.1	X74453	Nicotiana tabacum
AAD11618.1	AF050496	Lycopersicon esculentum	BAA08559.1	D49711	Populus kitakamiensis
AAD31896.1	AF145478	Mesembryanthemum crystallinum	AAB61731.1	U13171	Populus tremuloides
AAG28436.1	AF195029	Glycine max	CAA44006.1	X62096	Populus tremuloides
CAA68234.1	X99972	Brassica oleracea	AAC17455.1	U83789	Capsicum annuum
AAB58910.1	U82966	Oryza sativa	AAD29843.1	AF064695	Thalictrum tuberosum
AAA34099.1	M80491	Nicotiana plumbaginifolia	AAB68049.1	U50522	Populus tremuloides
AAA20600.1	U08984	Zea mays	AAC01533.1	U86760	Clarkia breweri
AAA20601.1	U08985	Zea mays	AAF60951.1	M73431	Populus x generosa
AAG01028.1	AF289025	Cucumis sativus	AAF63200.1	AF237777	Populus tomentosa
			BAA08558.1	D49710	Populus kitakamiensis
SEQ ID NO. 2581			CAA52814.1	X74814	Eucalyptus gunnii
AAF70507.1	AF259801	Lycopersicon esculentum	AAB71141.1	AF006009	Clarkia breweri
AAC27714.1	AF076954	Zea mays	CAA54616.1	X77467	Hordeum vulgare
CAC78262.1	Z12616	Triticum aestivum	AAB46623.1	M63853	Medicago sativa
AAA34295.1	M95818	Triticum aestivum	AAC78475.1	AF081214	Capsicum chinense
AAA34296.1	M95819	Triticum aestivum	CAA58218.1	X83217	Prunus dulcis
AAC27715.1	AF076955	Zea mays	AA86718.1	U19911	Zinnia elegans
SEQ ID NO. 2582			CAA13175.1	AJ231133	Saccharum officinarum
AAC49708.1	U39301	Pinus taeda	AAD10485.1	U76384	Triticum aestivum
AAB09044.1	U70873	Pinus radiata	AAD48913.1	AF139533	Liquidambar styraciflua
AAD24001.1	AF119225	Pinus radiata	AAC18623.1	AF010291	Lolium perenne
AAB71213.1	U82011	Pinus radiata	AAF44672.1	AF239740	Vitis vinifera
BAB08005.1	D29812	Prunus armeniaca	AAD50439.1	AF168776	Eucalyptus globulus
BAB08004.1	D29811	Coptis japonica	AAF28353.1	AF220491	Fragaria x ananassa
CAA11131.1	AJ223151	Coptis japonica	AAB03364.1	M73235	Zea mays
		Prunus dulcis	AA805079.1	U16794	Chrysosplenium americanum

SEQ ID NO. 2590	Lycopersicon esculentum	BAB17300.1	AB0422260	Zea mays
AAC78591.1	Lycopersicon esculentum	BAB20582.1	AB0422269	Zea mays
AAC78596.1	Lycopersicon esculentum	AAF323350.1	AF219972	Mesembryanthemum crystalli
AAC78593.1	Lycopersicon esculentum	BAA75253.1	AB004882	Zea mays
AAC78595.1	Lycopersicon esculentum	BAA85112.1	AB031011	Zea mays
AAC78597.1	Lycopersicon esculentum	SEQ ID NO. 2596		
AAC78592.1	Lycopersicon esculentum	AAD03693.1	AF084554	Brassica napus
CAA05276.1	Lycopersicon pimpinellifolium	CAA10372.1	AJ131455	Plastid Solanum demissum
AAC78594.1	Lycopersicon pimpinellifolium	CAA50750.1	X71952	Capsicum annuum
CAA05279.1	Lycopersicon esculentum	SEQ ID NO. 2597		
CAA05268.1	Lycopersicon hirsutum	AAG28600.1	AF247134	Limnanthes douglasii
CAA05274.1	Lycopersicon pimpinellifolium	AAC49186.1	U37088	Simmondsia chinensis
AAA65235.1	Lycopersicon pimpinellifolium	AAA96054.1	U50771	Brassica napus
BAB08215.1	Oryza sativa	AAB72178.1	AF009563	Brassica napus
BAA96776.1	Oryza sativa	AAK11266.1	AF333040	Dunaliella salina
AAD50430.1	Hordeum vulgare	CAC17746.1	AJ291728	Zea mays
CAB55409.1	Oryza sativa	AAC25110.1	AF054498	Brassica napus
SEQ ID NO. 2592	Lycopersicon pennellii	AAC25109.1	AF054497	Brassica napus
AAB61598.1		AAC25112.1	AF054500	Brassica oleracea
SEQ ID NO. 2593	Nicotiana tabacum	AAC25111.1	AF054499	Brassica rapa
AAK14408.1	Nicotiana tabacum	SEQ ID NO. 2598		
AAC37400.1	Vigna aconitifolia	BAA96751.1	AP002521	Oryza sativa
SEQ ID NO. 2594	Pisum sativum	AAF74345.1	AF150627	Cucurbita moschata
AAC16330.1	Nicotiana tabacum	CAA80364.1	222647	Cucurbita maxima
BAB41076.1	Pisum sativum	CAA78979.1	Z17331	Cucurbita maxima
AAC16331.1	Pisum sativum	CAB71030.1	AJ271666	Cicer arietinum
BAA31260.1	Oryza sativa	CAB44031.1	AJ010265	Glycine max
SEQ ID NO. 2595	Zea mays	BAA09704.1	D63388	Cucumis sativus
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BAB20579.1	Zea mays	BAA21875.1	AB006070	Arabidopsis lyrata subsp.
BAB20581.1	Zea mays	BAA21877.1	AB006072	Arabidopsis lyrata subsp.
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BAB20583.1	Zea mays	CAA92207.1	Z68123	Vitis vinifera
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BAB20585.1	Zea mays	BAA01948.1	D11335	Vigna angularis
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BAA77676.1	AB007126	Glycine max	BAB41022.1	AP047095	Vitis vinifera
BAA21743.2	AB006188	Oryza sativa	AAD21086.1	AF127218	Forsythia x intermedia
BAA77605.1	AB026998	Oryza sativa	BAB41020.1	AB047093	Vitis vinifera
AAB28479.1	S66038	Beta vulgaris	BAA19659.1	AB002818	Perilla frutescens
BAA77677.1	AB007127	Glycine max	BAB41018.1	AB047091	Vitis labrusca x Vitis vin.
CAA61280.1	X88802	Vigna unguiculata	AAB81683.1	AF000372	Vitis vinifera
BAA25015.1	AB000097	Glycine max	CAA54610.1	X77460	Manihot esculenta
CAB66334.1	AJ279692	Betula pendula	SEQ ID NO. 2613		
SEQ ID NO. 2606			CAA12358.1	AJ225027	Cicer arietinum
CAA56125.1	X79677	Cuphea lanceolata	AAG13986.1	AF298827	Prunus avium
			CAA63960.1	X94296	Hordeum vulgare
SEQ ID NO. 2612			SEQ ID NO. 2614		
CAA54609.1	X77459	Manihot esculenta	AAA87182.1	U20808	Vigna radiata
CAA54611.1	X77461	Manihot esculenta			
CAA54613.1	X77463	Manihot esculenta	SEQ ID NO. 2615		
CAA54612.1	X77462	Manihot esculenta	AAB70538.1	AF017358	Oryza sativa
AAB36653.1	U32644	Nicotiana tabacum	CAA65680.1	X96979	Hordeum vulgare
AAB36652.1	U32643	Nicotiana tabacum	AAF26451.1	AF221503	Pyrus communis
AAK28303.1	AF346431	Nicotiana tabacum	AAA70046.1	U29176	Oryza sativa
CAB56231.1	Y18871	Dortheanthus bellidiformis	AAF28385.1	AF151214	Nicotiana glauca
AAK28304.1	AF346432	Nicotiana tabacum	BAA23548.1	AB007843	Picea abies
CAA59450.1	X85138	Lycopersicon esculentum	AAK01293.1	AF331710	Avicennia marina
AAF17077.1	AF199453	Sorghum bicolor	BAA96206.1	AP002094	Oryza sativa
BAA83484.1	AB031274	Scutellaria baicalensis	AAA86694.1	U18127	Hordeum vulgare
AAF61647.1	AF190634	Nicotiana tabacum	CAA41946.1	X59253	Hordeum vulgare
BAA89008.1	AB027454	Petunia x hybrida	CAA44267.1	X62395	Nicotiana tabacum
BAA93039.1	AB033758	Citrus unshiu	CAA48621.1	X68654	Hordeum vulgare
BAA36423.1	AB013598	Verbena x hybrida	AAG27707.1	AF302788	Triticum aestivum
BAA89009.1	AB027455	Petunia x hybrida	CAA85484.1	Z37115	Hordeum vulgare
AAB48444.1	U82367	Solanum tuberosum	AAC63372.1	AF093751	Brassica oleracea
AAD04166.1	AF101972	Phaseolus lunatus	AAA73945.1	L33904	Brassica oleracea
AAD55985.1	AF165148	Petunia x hybrida	AAB05812.1	U63993	Hordeum vulgare
CAA54614.1	X77464	Manihot esculenta	AAB70540.1	AF017360	Oryza sativa
BAB41023.1	AB047096	Vitis vinifera	CAA91436.1	Z66529	Hordeum vulgare
BAB41025.1	AB047098	Vitis vinifera	CAA91435.1	Z66528	Hordeum vulgare
BAB41021.1	AB047094	Vitis vinifera	AAK20395.1	AF334185	Triticum aestivum
BAB41019.1	AB047092	Vitis vinifera	AAB80805.1	U90342	Pinus radiata
BAB41026.1	AB047099	Vitis vinifera	CAA50661.1	X71668	Sorghum bicolor
BAB41024.1	AB047097	Vitis vinifera	CAA50660.1	X71667	Sorghum bicolor
BAA12737.1	D85186	Gentiana triflora			

AA049860.1	U72765	Phaseolus vulgaris	AA010495.1	U86763	Triticum aestivum
AA071695.1	AF198168	Aerides japonica	AA026848.1	AF342809	Zea mays
CA069949.1	Y08691	Oryza sativa	SEQ ID NO. 2620		
AA018815.1	U72795	Oryza sativa	CAA53076.1	X75327	Pisum sativum
AA074624.1	U31766	Oryza sativa	AA047571.1	U87848	Nicotiana plumbaginifolia
AA070541.1	AF017361	Oryza sativa	AA082296.1	AF196292	Apium graveolens
AA026450.1	AF221502	Malus x domestica	CAA53075.1	X75326	Zea mays
AA014232.1	AF109195	Hordeum vulgare	BAB18543.1	AB043539	Avicennia marina
AA023459.1	AF208833	Capsicum annuum	AA058165.1	AF000132	Amaranthus hypochondriacus
AA070539.1	AF017359	Oryza sativa	BAB18544.1	AB043540	Avicennia marina
AA073947.1	I33906	Brassica oleracea	BAA21098.1	AB001348	Oryza sativa
AA033493.1	J04176	Zea mays	AA070010.1	AF017150	Amaranthus hypochondriacus
CAA65475.1	X96714	Prunus dulcis	AA034025.1	M31480	Spinacia oleracea
CAA48623.1	X68656	Hordeum vulgare	AA041696.1	U69142	Spinacia oleracea
CAA80809.1	Z23271	Oryza sativa	CAA41376.1	X58462	Beta vulgaris
CAA50662.1	X71669	Sorghum bicolor	CAA41377.1	X58463	Beta vulgaris
AA06443.1	U66105	Zea mays	CAA49425.1	X69770	Atriplex hortensis
SEQ ID NO. 2617			CAA71003.1	Y09876	Nicotiana tabacum
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AA039372.1	AF118381	Brassica napus	BAB19052.1	AB044537	Oryza sativa
BAB12722.1	AB048248	Pyrus communis	AA043988.1	AF215823	Zea mays
CAC01618.1	AJ251652	Medicago truncatula	BAA96794.1	AB037421	Oryza sativa
AA082790.1	AF275315	Lotus japonicus	BAA96793.1	AB030939	Oryza sativa
AA04846.1	AF020793	Medicago sativa	BAA05466.1	D26448	Hordeum vulgare
CAA69353.1	Y08161	Nicotiana tabacum	AA049268.1	U12196	Sorghum bicolor
AA09245.1	AF037061	Zea mays	AA030355.1	AF045770	Oryza sativa
AA010494.1	U86762	Triticum aestivum	AA033843.1	S77096	Brassica napus
AA017284.1	U43291	Mesembryanthemum crystallinum	AA043027.1	AF323586	Oryza sativa
AA026767.1	AF326500	Zea mays	AA049267.1	U12195	Sorghum bicolor
CAA64952.1	X95650	Tulipa gesneriana	SEQ ID NO. 2622		
CAA06335.1	AJ005078	Picea abies	AA074981.1	AF082891	Chloroplast Solanum tuberosum
AA051394.1	U92652	Brassica oleracea var. botrytis	AA031520.2	AF144102	Solanum tuberosum
AA04557.1	U62778	Gossypium hirsutum	CAB57356.1	Y17185	Fragaria vesca
CAA65185.1	X95951	Helianthus annuus	AA074982.1	AF082892	Chloroplast Solanum tuberosum
CAA65184.1	X95950	Helianthus annuus	AA034548.1	AF141602	Glycine max
AA039480.1	AF047173	Vernicia fordii	AA039395.1	AF069317	Mesembryanthemum crystallinum
CAA65187.1	X95953	Helianthus annuus	AA061348.1	AF007786	Zea mays
AA026769.1	AF326502	Zea mays	AA061347.1	AF007785	Zea mays
CAA65186.1	X95952	Helianthus annuus	AA016143.1	AF097180	Nicotiana tabacum
AA026768.1	AF326501	Zea mays			



Oryza sativa	AF076495	SEQ ID NO. 2624	Oryza sativa	SEQ ID NO. 2626	Nicotiana tabacum
Oryza sativa	AP002069	BAB03427.1	Oryza sativa	AAF33669.1	Nicotiana tabacum
Oryza sativa	AP002069	BAA95820.1	Oryza sativa	AAF33670.1	Nicotiana tabacum
Chloroplast	AF082890	BAA95830.1	Chloroplast	AAB53255.1	Nicotiana tabacum
Cucumis melo	AF206626	AAF74980.1	Cucumis melo	CAA68912.1	Zea mays
		AAF64422.1		CAA65254.1	Lycopersicon esculentum
				CAA71598.1	Vicia faba
				BAA84085.1	Nicotiana paniculata
Oryza sativa	AP002816	BAB03427.1	Oryza sativa	CAB54856.1	Zea mays
Oryza sativa	D16499	BAA03949.1	Mesembryanthemum crystallinum	CAA12645.1	Egeria densa
		CAA45772.1	Oryza sativa	AAD39492.1	Samanea saman
		BAB07934.1	Oryza sativa	AAF36832.1	Triticum aestivum
		BAB20887.1	Aloe arborescens	CAC05489.1	Populus tremula x Populus
		BAA24950.1	Aloe arborescens	tremuloides	
		BAA74735.1	Ricinus communis	AAD16278.1	Samanea saman
		AAF73006.1	Populus balsamifera subsp.	CAC10514.1	Samanea saman
		CAA39690.1		CAA56175.1	Solanum tuberosum
trichocarpa				BAA96192.1	Oryza sativa
AAA67087.1	I34836	AAA67087.1	Vitis vinifera	BAA96150.1	Oryza sativa
AAB08874.1	U67426	AAB08874.1	Vitis vinifera	AAF81251.1	Mesembryanthemum crystallinum
AAB58727.1	AF001269	AAB58727.1	Lycopersicon esculentum	CAB62555.1	Populus tremula x Populus
AAA34174.1	I27509	AAA34174.1	Lycopersicon esculentum	CAC05488.1	
AAB58728.1	AF001270	AAB58728.1	Lycopersicon esculentum	tremuloides	
CAA40421.1	X57142	CAA40421.1	Flaveria trinervia	SEQ ID NO. 2628	
CAA54986.1	X78069	CAA54986.1	Flaveria pringlei	CAA58994.1	Sinapis alba
CAA12157.1	AJ224847	CAA12157.1	Zea mays	CAA76116.1	Sinapis alba
CAA56354.1	X80051	CAA56354.1	Phaseolus vulgaris	SEQ ID NO. 2632	
AAA19575.1	J03825	AAA19575.1	Phaseolus vulgaris	AAB72115.1	Pisum sativum
CAB66003.1	AJ132257	AJ132257	Apium graveolens	AAA88792.1	Glycine max
AAD10504.1	U39958	AAD10504.1	Zea mays	AAA70363.1	Triticum aestivum
AAA33487.1	J05130	AAA33487.1	Zea mays	SEQ ID NO. 2633	
AAB41026.1	M59415	AAB41026.1	Flaveria linearis	CAA49854.1	Antirrhinum majus
CAA80559.1	Z23023	CAA80559.1	Solanum tuberosum	CAA38634.1	Nicotiana tabacum
CAA80547.1	Z23002	CAA80547.1	Solanum tuberosum	AAK26769.1	Zea mays
AAA19014.1	U01162	AAA19014.1	Amaranthus hypochondriacus	AAK26768.1	Zea mays
AAD11429.1	AF097666	AAD11429.1	Mesembryanthemum crystallinum	AAK26770.1	Zea mays
AAB19243.1	M59416	AAB19243.1	Flaveria trinervia	BAA31452.1	Raphanus sativus
AAA83963.1	I35306	AAA83963.1	Lycopersicon esculentum		
AAG23801.1	AF260735	AAG23801.1	Cucurbita pepo		
BAA76435.1	AB025007	BAA76435.1	Cicer arietinum		
AAG23798.1	AF260732	AAG23798.1	Cucurbita pepo		
AAB17593.1	U44922	AAB17593.1	Flaveria bidentis		

AA031849.1	AF133533	Mesembryanthemum crystallinum	CAA72186.1	Y11351	Oryza sativa
AA031848.1	AF133532	Mesembryanthemum crystallinum	CAA67600.1	X99210	Lycopersicon esculentum
BAA12711.1	D84669	Raphanus sativus	BAA88222.1	AB028650	Nicotiana tabacum
AA082790.1	AF275315	Lotus japonicus	CAA72217.1	Y11414	Oryza sativa
AA009245.1	AF037061	Zea mays	BAA23339.1	D88619	Oryza sativa
AAK26767.1	AF326500	Zea mays	CAA75509.1	Y15219	Oryza sativa subsp. indica
CAC01618.1	AF251652	Medicago truncatula	CAA65525.1	X96749	Oryza sativa
AA017284.1	U43291	Mesembryanthemum crystallinum	AA041101.1	U72762	Nicotiana tabacum
AA031847.1	AF133531	Mesembryanthemum crystallinum	CAA72185.1	Y11350	Oryza sativa
SEQ ID NO. 2635			SEQ ID NO. 2642		
BAA77836.1	AB027456	Citrus unshiu	AA041741.1	U82558	Lycopersicon esculentum
SEQ ID NO. 2636			SEQ ID NO. 2643		
AAK19619.1	AF336286	Gossypium hirsutum	AA041742.1	U82559	Lycopersicon esculentum
CAA64614.1	X95296	Lycopersicon esculentum	AA041741.1	U82558	Lycopersicon esculentum
CAA50221.1	X70876	Hordeum vulgare	SEQ ID NO. 2644		
CAA50224.1	X70879	Hordeum vulgare	CAA73134.1	Y12531	Brassica oleracea
CAA50222.1	X70877	Hordeum vulgare	AA093834.1	U82481	Zea mays
BAA23337.1	D88617	Oryza sativa	CAA67145.1	X98520	Brassica oleracea
BAA23338.1	D88618	Oryza sativa	CAA74661.1	Y14285	Brassica oleracea
CAA72218.1	Y11415	Oryza sativa	CAA73133.1	Y12530	Brassica napus
AAK19611.1	AF336278	Gossypium hirsutum	AA062232.1	U00443	Brassica napus subsp. napus
CAA78386.1	Z13996	Petunia x hybrida	CAB89179.1	AJ245479	Brassica napus
CAA50225.1	X70880	Hordeum vulgare	AA033008.1	M97667	Brassica napus
AAK19618.1	AF336285	Gossypium hirsutum	BAA92836.1	AB032473	Brassica oleracea
AAK19616.1	AF336283	Gossypium hirsutum	BAA23676.1	AB000970	Brassica rapa
AAK19615.1	AF336282	Gossypium hirsutum	AA023542.1	U20948	Ipomoea trifida
AA022256.1	AF161711	Pimpinella brachycarpa	AA033000.1	M76647	Brassica oleracea
AAK19617.1	AF336284	Gossypium hirsutum	BAA21132.1	D88193	Brassica rapa
CAA78387.1	Z13997	Petunia x hybrida	BAA06285.1	D30049	Brassica rapa
CAB43399.1	AJ006292	Antirrhinum majus	CAB41879.1	Y18260	Brassica oleracea
BAA81732.1	AB029161	Glycine max	BAA07577.2	D38564	Brassica rapa
BAA81731.1	AB029160	Glycine max	CAA74662.1	Y14286	Brassica oleracea
BAA81730.1	AB029159	Glycine max	BAB21001.1	AB054061	Brassica rapa
BAA88224.1	AB028652	Nicotiana tabacum	BAA92837.1	AB032474	Brassica oleracea
BAA88221.1	AB028649	Nicotiana tabacum	CAB41878.1	Y18259	Brassica oleracea
AAA33500.1	M73028	Zea mays	CAA79355.1	Z18921	Brassica oleracea
AA036774.1	AF210616	Zea mays	BAA07576.1	D38563	Brassica rapa
BAA81736.1	AB029165	Glycine max	AA034428.1	AF172282	Oryza sativa
BAA81733.2	AB029162	Glycine max			

AA021872.1	AA078082	Phaseolus vulgaris	AA077996.1	Sorghum bicolor
AA052097.1	AA088885	Nicotiana tabacum	BAB19052.1	Oryza sativa
BAA94516.1	AP001800	Oryza sativa	AA073828.1	Oryza sativa
BAA94517.1	AP001800	Oryza sativa	BAA21098.1	Oryza sativa
AAA33915.1	I27821	Oryza sativa	AAG43988.1	Zea mays
BAA94529.2	AP001800	Oryza sativa	CAA41377.1	Beta vulgaris
			CAA41376.1	Beta vulgaris
			AAA34025.1	Spinacia oleracea
			AA041696.1	Spinacia oleracea
			BAA96793.1	Oryza sativa
			CAA71003.1	Nicotiana tabacum
			AA070010.1	Nicotiana tabacum
			BAB18544.1	Amaranthus hypochondriacus
			BAB18543.1	Avicennia marina
			AA058165.1	Avicennia marina
			BAA96794.1	Amaranthus hypochondriacus
			CAA49425.1	Oryza sativa
			BAA05466.1	Atriplex hortensis
			AA049268.1	Hordeum vulgare
			CAA53075.1	Sorghum bicolor
			AA030355.1	Zea mays
			CAA53076.1	Oryza sativa
			AA047571.1	Pisum sativum
			AA08296.1	Nicotiana plumbaginifolia
			AA049267.1	Apium graveolens
				Sorghum bicolor



Accession	Species	Seq ID	Seq ID NO.
CAA76680.1	Cucurbita pepo	Y17192	1
BAA06335.1	Populus kitakamiensis	D30653	1
BAA94962.1	Asparagus officinalis	AB042103	1
BAA01992.1	Nicotiana tabacum	D11396	1
AAF63027.1	Spinacia oleracea	AF244924	1
CAB94692.1	Ipomoea batatas	AJ242742	1
BAA01877.1	Populus kitakamiensis	D11102	1
AAA34108.1	Nicotiana tabacum	J02979	1
BAA03644.1	Oryza sativa	D14997	1
AAD37430.1	Phaseolus vulgaris	AF149280	1
AAF63024.1	Spinacia oleracea	AF244921	1
AAC98519.1	Glycine max	AF007211	1
CAA80502.1	Spirodela polyrrhiza	Z22920	1
AAD11482.1	Glycine max	U51192	1
AAB41810.1	Medicago sativa	L36156	1
CAA62225.1	Medicago sativa	X90692	1
BAA03911.1	Oryza sativa	D16442	1
AAC49818.1	Oryza sativa	AF014467	1
BAA07664.1	Nicotiana tabacum	D42065	1
AAC49821.1	Oryza sativa	AF014470	1
CAA76374.2	Spinacia oleracea	Y16776	1
BAA07663.1	Nicotiana tabacum	D42064	1
AAB48184.1	Linum usitatissimum	L24120	1
CAA46916.1	Oryza sativa	X66125	1
CAA59485.1	Triticum aestivum	X85228	1
AAD11481.1	Glycine max	U51191	1
BAA92500.1	Oryza sativa	AF001383	1
AAC49820.1	Oryza sativa	AF014469	1
AAB02554.1	Stylosanthes humilis	L37790	1
SEQ ID NO. 2657			
CAA46556.1	Hordeum vulgare	X65606	1
AAF66639.1	Lycopersicon esculentum	AF143743	1
BAA05649.1	Nicotiana tabacum	D26602	1
AAB52224.1	Solanum tuberosum	U83797	1
CAA46554.1	Hordeum vulgare	X55604	1
AAC99329.1	Oryza sativa	AF062479	1
AAB05457.1	Oryza sativa	U55768	1
CAA07813.1	Hordeum vulgare	AJ007990	1
CAA65244.1	Solanum tuberosum	X95997	1
AAD23582.1	Glycine max	AF128443	1
CAA71142.1	Cucumis sativus	Y10036	1
CAA57898.1	Hordeum vulgare	X82548	1
CAA65243.1	Solanum tuberosum	X95996	1
BAA96628.1	Oryza sativa	AF002482	1
CAA73068.1	Sorghum bicolor	Y12465	1
CAA73067.1	Sorghum bicolor	Y12464	1
BAA83689.1	Oryza sativa	AB011968	1
AAF22219.1	Zea mays	AF141378	1
BAA34675.1	Triticum aestivum	AB011670	1
BAA83688.1	Oryza sativa	AB011967	1
AAD00239.1	Nicotiana tabacum	U73938	1
AAG60195.1	Oryza sativa	AC084763	1
AAB62693.1	Oryza sativa	AF004947	1
BAA19573.1	Oryza sativa	AB002109	1
BAA13608.1	Oryza sativa	D88399	1
AAB68962.1	Glycine max	L38855	1
CAA81443.1	Mesembryanthemum crystallinum	Z26846	1
AAD00240.1	Nicotiana tabacum	U73939	1
AAF27340.1	Vicia faba	AF186020	1
AAB58348.1	Triticum aestivum	U29095	1
CAA06503.1	Craterostigma plantagineum	AJ005373	1
AAC98509.1	Chlamydomonas reinhardtii	AF100162	1
AAA96325.1	Triticum aestivum	M94726	1
SEQ ID NO. 2658			
AAF29773.1	Gossypium hirsutum	AF159229	1
AAG34795.1	Glycine max	AF243360	1
AAF22518.1	Papaver somniferum	AF118925	1
AAF22517.1	Papaver somniferum	AF118924	1
AAF22519.1	Papaver somniferum	AF118926	1
AAG34848.1	Zea mays	AF244705	1
AAC32118.1	Picea mariana	AF051214	1
AAG34842.1	Zea mays	AF244699	1
AAG34846.1	Zea mays	AF244703	1
AAG34830.1	Zea mays	AF244687	1
AAD10129.1	Aegilops tauschii	AF004358	1
AAG34835.1	Zea mays	AF244692	1
AAG34839.1	Zea mays	AF244696	1
AAG34850.1	Zea mays	AF244707	1
AAG34845.1	Zea mays	AF244702	1
AAG34838.1	Zea mays	AF244695	1



BAA36421.1	AB013596	Perilla frutescens	BAA03439.1	D14589	Eustoma grandiflorum
BAA36422.1	AB013597	Perilla frutescens	AAG49315.1	AF315465	Pelargonium x hortorum
BAA12737.1	D85186	Gentiana triflora	AAC39452.1	AF014800	Eschscholzia californica
BAA1024.1	AB047097	Vitis vinifera	CAA50648.1	X71657	Solanum melongena
BAB41026.1	AB047099	Vitis vinifera	AAC39453.1	AF014801	Eschscholzia californica
BAB41020.1	AB047093	Vitis vinifera	BAA12735.1	D85184	Gentiana triflora
BAB41022.1	AB047095	Vitis vinifera	AAF05621.1	AF191772	Papaver somniferum
AAD21086.1	AF127218	Forsythia x intermedia	SEQ ID NO. 2672		
BAB41025.1	AB047098	Vitis vinifera	AAC48922.1	U06047	Vigna radiata
BAB41023.1	AB047096	Vitis vinifera			
BAB41021.1	AB047094	Vitis vinifera	SEQ ID NO. 2673		
BAB41019.1	AB047092	Vitis vinifera	BAA93453.1	AB026495	Petunia x hybrida
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	BAA74428.1	AB010708	Gentiana triflora
AAB81683.1	AF000372	Vitis vinifera	BAA96577.1	AP002480	Oryza sativa
AAB81682.1	AF000371	Vitis vinifera	BAA93452.1	AB026494	Gentiana triflora
BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera	BAA93475.1	AB029340	Perilla frutescens
BAA19659.1	AB002818	Perilla frutescens	AAG13130.1	AF193789	Fragaria x ananassa
AAB48444.1	U82367	Solanum tuberosum	SEQ ID NO. 2674		
AAB36652.1	U32643	Nicotiana tabacum	AAF19807.1	AF180356	Brassica oleracea
AAK28304.1	AF346432	Nicotiana tabacum	BAA92986.1	AP001550	Oryza sativa
AAB36653.1	U32644	Nicotiana tabacum	AAF19403.1	AF203481	Lycopersicon esculentum
AAK28303.1	AF346431	Nicotiana tabacum	AAF19402.1	AF203480	Lycopersicon esculentum
BAB90787.1	AB038248	Ipomoea batatas	BAA05648.1	D26601	Nicotiana tabacum
CAA54612.1	X77462	Manihot esculenta	AAF23900.1	AF194413	Oryza sativa
BAB89008.1	AB027454	Petunia x hybrida	AAF23901.2	AF194414	Oryza sativa
CAA54614.1	X77464	Manihot esculenta	CAA89202.1	Z49233	Chlamydomonas eugametos
SEQ ID NO. 2669			BAA13440.1	D87707	Ipomoea batatas
AAD56282.1	AF155332	Petunia x hybrida	AAF21062.1	AF216527	Dunaliella tertiolecta
BAB20076.1	AB012925	Torenia hybrida	BAA85396.1	AP000615	Oryza sativa
CAA80266.1	Z22545	Petunia x hybrida	AAC05270.1	AF048691	Oryza sativa
BAA03438.1	D14588	Petunia x hybrida	AAC04324.1	U73937	Nicotiana tabacum
AAC32274.1	AF081575	Petunia x hybrida	CAA73067.1	Y12464	Sorghum bicolor
CAA09850.1	AJ011862	Catharanthus roseus	CAA57156.1	X81393	Oryza sativa
AAG49299.1	AF313489	Callistephus chinensis	AAG36872.1	AF239819	Zea mays
AAG49300.1	AF313490	Lycianthes rantonnei	AAD17800.1	AF090835	Mesembryanthemum crystallinum
CAA50155.1	X70824	Solanum melongena	CAA43659.1	X61387	Zea mays
BAA03440.1	D14590	Campanula medium	AAF76187.1	AF271237	Zea mays
CAA80265.1	Z22544	Petunia x hybrida	BAB21591.1	AB036788	Oryza sativa
AAB17562.1	U72654	Eustoma grandiflorum	BAB21589.1	AB036786	Oryza sativa
AAG49301.1	AF313491	Matthiola incana			

[illegible]



AAK31592.1	AY029178	Brassica rapa subsp. pekinensis	AAC39358.1	AF005655	Eschscholzia californica
AAG33645.1	AF092917	Vicia sativa	AAD17487.1	AF049347	Berberis stolonifera
AAD10204.1	AF030260	Vicia sativa	SEQ ID NO. 2688		
CAB41474.1	AJ238402	Catharanthus roseus	BAA13524.1	D87984	Fagopyrum esculentum
AAB94586.1	AF022457	Glycine max	BAB20886.1	AB053294	Oryza sativa
CAA89260.1	Z49263	Pisum sativum	AAF88067.1	AF286593	Triticum aestivum
AAD56282.1	AF155332	Petunia x hybrida	CAA05081.1	AJ001903	Triticum turgidum subsp. d
CAA70575.1	Y09423	Nepeta racemosa	CAA41415.1	X58527	Nicotiana tabacum
CAA50155.1	X70824	Solanum melongena	AAB53694.1	U59379	Brassica napus
AAA32913.1	M32885	Persea americana	BAA25681.1	AB010434	Brassica rapa
BAA22423.1	AB001380	Glycyrrhiza echinata	BAA04864.1	D21836	Oryza sativa
AAB94588.1	AF022459	Glycine max	AAB51522.1	U92541	Oryza sativa
BAA74466.1	AB022733	Glycyrrhiza echinata	BAA05546.1	D26547	Oryza sativa
AAB94592.1	AF022463	Glycine max	AAC32111.1	AF051206	Picea mariana
BAA84072.1	AB028152	Torenia hybrida	AAG35777.1	AF273844	Brassica oleracea var.
BAA12159.1	D83968	Glycine max	alboglabra		
AAA17732.1	L19074	Catharanthus roseus	AAB53695.1	U59380	Brassica napus
SEQ ID NO. 2683			CAA94534.1	Z70677	Ricinus communis
CAA84230.1	Z34465	Zea mays	CAA77847.1	Z11803	Nicotiana tabacum
AAD55979.1	AF159296	Lycopersicon esculentum	BAB39913.1	AP002912	Oryza sativa
AAD55980.1	AF159297	Zea mays	AAD49230.1	AF159385	Hordeum bulbosum
SEQ ID NO. 2684			AAD49231.1	AF159386	Secale cereale
CAB45652.1	AJ243308	Pisum sativum	AAD49234.1	AF159389	Phalaris coerulescens
CAA28471.1	X04782	Glycine max	AAD49233.1	AF159388	Phalaris coerulescens
BAB12437.1	AB027468	Adiantum capillus-veneris	AAD33596.1	AF133127	Hevea brasiliensis
SEQ ID NO. 2685			AAD49232.1	AF159387	Lolium perenne
AAF40306.1	AF156667	Vigna radiata	AAD56954.1	AF186240	Secale cereale
BAA03763.1	D16247	Nicotiana sylvestris	CAA56850.1	X80887	Chlamydomonas reinhardtii
AAF75791.1	AF271892	Pisum sativum	CAA55399.1	X78822	Chlamydomonas reinhardtii
CAA68193.1	X99937	Spinacia oleracea	AAC19392.1	AF069314	Mesembryanthemum crystallinum
AAD20980.1	AF079782	Zea mays	CAA53900.1	X76269	Pisum sativum
BAA95705.1	AB042644	Oryza sativa	AAC04671.1	AF018174	Brassica napus
BAA95704.1	AB042643	Oryza sativa	AAC49358.1	U35831	Pisum sativum
AAG48833.1	AC084218	Oryza sativa	AAB52409.1	U76831	Brassica napus
SEQ ID NO. 2687			AAD45358.1	AF160870	Brassica napus
AAC61839.1	AF025430	Papaver somniferum	CAA33082.1	X14959	Spinacia oleracea
AAB20352.1	S65550	Eschscholzia californica	CAA35827.1	X51463	Spinacia oleracea
			CAA35826.1	X51462	Spinacia oleracea
			CAA45098.1	X63537	Pisum sativum
			CAA06736.1	AJ005841	Oryza sativa

AAC49357.1	U35830	Pisum sativum	AAA63452.1	M55191	Solanum tuberosum
CAA56851.1	X80888	Chlamydomonas reinhardtii	BAA04611.1	D17765	Oryza sativa
CAA55398.1	X78821	Chlamydomonas reinhardtii	SEQ ID NO. 2692		
CAA44209.1	X62335	Chlamydomonas reinhardtii	CAA54612.1	X77462	Manihot esculenta
CAA06735.1	AJ005840	Triticum aestivum	CAA54609.1	X77459	Manihot esculenta
AAB03681.1	U43609	Chlamydomonas reinhardtii	CAA54611.1	X77461	Manihot esculenta
			CAA54613.1	X77463	Manihot esculenta
			CAB56231.1	Y18871	Dorotheanthus bellidifolium
			AAB36653.1	U32644	Nicotiana tabacum
			AAK28303.1	AF346431	Nicotiana tabacum
			AAF61647.1	AF190634	Nicotiana tabacum
			AAB36652.1	U32643	Nicotiana tabacum
			AAK28304.1	AF346432	Nicotiana tabacum
			AAF17077.1	AF199453	Sorghum bicolor
			BAA89009.1	AB027455	Petunia x hybrida
			CAA59450.1	X85138	Lycopersicon esculentum
			BAA83484.1	AB031274	Scutellaria baicalensis
			AAF98390.1	AF287143	Brassica napus
			BAA36423.1	AB013598	Verbena x hybrida
			AAD04166.1	AF101972	Phaseolus lunatus
			BAB41021.1	AB047094	Vitis vinifera
			BAB41023.1	AB047096	Vitis vinifera
			BAB41025.1	AB047098	Vitis vinifera
			BAB41019.1	AB047092	Vitis vinifera
			AAD21086.1	AF127218	Forsythia x intermedia
			BAB41017.1	AB047090	Vitis labrusca x Vitis vinifera
			BAB41026.1	AB047099	Vitis vinifera
			BAB41024.1	AB047097	Vitis vinifera
			BAB41022.1	AB047095	Vitis vinifera
			AAB81682.1	AF000371	Vitis vinifera
			BAB41020.1	AB047093	Vitis vinifera
			AAB81683.1	AF000372	Vitis vinifera
			BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera
			BAA93039.1	AB033758	Citrus unshiu
			SEQ ID NO. 2693		
			CAA09881.1	AJ011939	Trifolium repens
			CAA62228.1	X90695	Medicago sativa
			AAB41812.1	I36158	Medicago sativa
			CAA71495.1	Y10469	Spinacia oleracea
			SEQ ID NO. 2689		
			CAA09881.1	AJ011939	Trifolium repens
			CAA62228.1	X90695	Medicago sativa
			AAB41812.1	I36158	Medicago sativa
			CAA71495.1	Y10469	Spinacia oleracea
			SEQ ID NO. 2691		
			AAC67587.1	AF095521	Trifolium repens
			CAA83682.1	Z32849	Medicago sativa
			AAA63451.1	M55190	Medicago sativa
			CAA83683.1	Z32850	Spinacia oleracea
			AAC67586.1	AF095520	Spinacia oleracea
			SEQ ID NO. 2689		
			CAA09881.1	AJ011939	Trifolium repens
			CAA62228.1	X90695	Medicago sativa
			AAB41812.1	I36158	Medicago sativa
			CAA71495.1	Y10469	Spinacia oleracea

AAAD11482.1	U51192	Glycine max	CAA46916.1	X66125	Oryza sativa
AAAD11481.1	U51191	Glycine max	AAA32676.1	M37637	Arachis hypogaea
AAAD11483.1	U51193	Glycine max	SEQ ID NO. 2694		
BAA77387.1	AB024437	Scutellaria baicalensis	CAA88254.1	Z48221	Phaseolus vulgaris
AAAD11484.1	U51194	Glycine max	CAA40686.1	X57438	Brassica napus
CAA62226.1	X90693	Medicago sativa	CAA05491.1	AJ002485	Medicago sativa
AAC98519.1	AF007211	Glycine max	CAA05493.1	AJ002487	Medicago sativa
CAC211393.1	AJ401276	Zea mays	CAA56766.1	X80788	Medicago sativa subsp. x v.
AAA65637.1	L13654	Lycopersicon esculentum	CAB07803.1	Z93768	Nicotiana tabacum
BAA07664.1	D42065	Nicotiana tabacum	CAA05492.1	AJ002486	Medicago sativa
AAA98491.1	L36981	Petroselinum crispum	BAA92244.1	AB038648	Vicia faba
AAAD37427.1	AF149277	Phaseolus vulgaris	AAA33545.1	M60215	Zea mays
CAB67121.1	Y19023	Lycopersicon esculentum	AAA74625.1	U31773	Oryza sativa
AAA65636.1	L13653	Lycopersicon esculentum	CAA07470.1	AJ007332	Catharanthus roseus
BAA03644.1	D14997	Lycopersicon esculentum	AAAD38856.1	AF156101	Chlamydomonas reinhardtii
CAA50597.1	X71593	Oryza sativa	CAB07804.1	Z93769	Nicotiana tabacum
AAA41811.1	L36157	Medicago sativa	CAA45119.1	X63558	Brassica oleracea
AAAF63024.1	AF244921	Spinacia oleracea	CAA82263.1	Z28627	Acetabularia cliftonii
BAA07663.1	D42064	Nicotiana tabacum	CAA05494.1	AJ002488	Medicago sativa
BAA01950.1	D11337	Vigna angularis	CAA82264.1	Z28632	Acetabularia cliftonii
AAAF65464.2	AF247700	Oryza sativa	CAB07805.1	Z93770	Nicotiana tabacum
BAA08499.1	D49551	Oryza sativa	AAAD48068.1	AF173881	Oryza sativa subsp. indica
CAA71496.1	Y10470	Spinacia oleracea	CAB46506.1	AJ007496	Nicotiana tabacum
CAB94692.1	AJ242742	Ipomoea batatas	CAA81395.1	Z26654	Acetabularia cliftonii
AAG02215.1	AF291667	Pinus sylvestris	AAAD22116.1	AF134552	Oryza sativa subsp. indica
AAAD37376.1	AF145350	Glycine max	BAA92698.1	AB039917	Vicia faba
CAA62227.1	X90694	Medicago sativa	BAA92697.1	AB039916	Vicia faba
CAA71488.1	Y10462	Spinacia oleracea	CAB07807.1	Z93772	Nicotiana tabacum
CAA71492.1	Y10466	Spinacia oleracea	BAA92699.1	AB039918	Vicia faba
BAA01877.1	D11102	Populus kitakamiensis	CAA49849.1	X70399	Medicago sativa
CAA76374.2	Y16776	Spinacia oleracea	AAAD41126.1	AF159061	Oryza sativa subsp. indica
AAAB06183.1	M37636	Arachis hypogaea	CAA40687.1	X57439	Brassica napus
AAAD43561.1	AF155124	Gossypium hirsutum	CAC11129.1	AJ298829	Fagus sylvatica
AAC49819.1	AF014468	Oryza sativa	CAA81126.1	Z26041	Helianthus annuus
CAAO5897.1	AJ003141	Hordeum vulgare	AAAD09953.1	AF107464	Hevea brasiliensis
AAAB67737.1	L77080	Stylosanthes humilis	AAAF6353.1	AF283668	Oryza sativa subsp. indica
BAA03911.1	D16442	Oryza sativa	AAAC72838.1	AF097182	Oryza sativa
CAA62225.1	X90692	Medicago sativa	CAA07471.1	AJ007333	Catharanthus roseus
CAA74203.1	Y13905	Zea mays	AAA91806.1	U49113	Oryza sativa
CAA71490.1	Y10464	Spinacia oleracea	CAB07806.1	Z93771	Nicotiana tabacum
AAA34108.1	J02979	Nicotiana tabacum			

CAA87385.1	Z47076	Malus x domestica	AA027591.1	AF121354	Petroselinum crispum
CAC11128.1	AJ298828	Fagus sylvatica	BAA87069.1	AB035271	Matricaria chamomilla
CAA87387.1	Z47078	Malus x domestica	SEQ ID NO. 2698		
CAA87386.1	Z47077	Malus x domestica	CAA06223.1	AJ004923	Lycopersicon esculentum
BAA92333.1	AB038786	Vicia faba	SEQ ID NO. 2699		
BAA92334.1	AB038787	Vicia faba	CAA59472.1	X85206	Catharanthus roseus
BAA92337.1	AB038790	Vicia faba	BAB16431.1	AB041519	Nicotiana tabacum
BAA92338.1	AB038791	Vicia faba	AAF78903.1	AF248055	Glycine max
BAA92336.1	AB038789	Vicia faba	AAC60566.1	S68113	Brassica napus
SEQ ID NO. 2695			AAC49369.1	U34333	Phaseolus vulgaris
AAA33945.1	J03919	Glycine max	AAD01800.1	AF026382	Fragaria x ananassa
CAA48297.1	X68215	Pisum sativum	BAA13150.1	D86629	Nicotiana tabacum
AAA33944.1	J03920	Glycine max	BAB16428.1	AB041516	Nicotiana tabacum
CAA48298.1	X68216	Pisum sativum	BAA95941.1	AB035125	Nicotiana tabacum
CAA48299.1	X68217	Pisum sativum	BAA13155.1	D86721	Nicotiana tabacum
CAA48300.1	X68218	Pisum sativum	AAB18205.1	U73214	Nicotiana tabacum
AAD50278.1	AF169830	Glycine max	CAA57810.1	X82413	Triticum aestivum
SEQ ID NO. 2696			AAA33132.1	L20755	Asparagus officinalis
AAC37515.1	I44134	Cucumis sativus	CAA42959.1	X60432	Cuscuta reflexa
AAD16139.1	AF096299	Nicotiana tabacum	CAA43666.1	X61395	Zea mays
BAA77383.1	AB020590	Nicotiana tabacum	CAA40361.1	X57076	Lycopersicon esculentum
BAA86031.1	AB026890	Nicotiana tabacum	SEQ ID NO. 2701		
AAC31956.1	AF080595	Pimpinella brachycarpa	CAA52149.1	X73961	Cucumis sativus
AAD55974.1	AF121353	Petroselinum crispum	AAC03416.1	U92815	Citrullus lanatus
AAC49527.1	U48831	Petroselinum crispum	CAA47345.1	X66874	Phaseolus vulgaris
BAA82107.1	AB022693	Nicotiana tabacum	AAC60559.2	S59747	Mitochondrion Solanum tuberosum
CAA88326.1	Z48429	Avena fatua	AAA33637.1	L03299	Pisum sativum
AAD16138.1	AF096298	Nicotiana tabacum	AAB96660.1	AF039084	Spinacia oleracea
AAE23898.1	AF193802	Oryza sativa	AAB91473.1	AF035458	Spinacia oleracea
AAC49529.1	U58540	Petroselinum crispum	AAB91472.1	AF035457	Spinacia oleracea
AAG35658.1	AF204925	Petroselinum crispum	CAA65356.1	X96502	Chlamydomonas reinhardtii
BAA77358.1	AB020023	Nicotiana tabacum	AAB96659.1	AF039083	Spinacia oleracea
BAB16432.1	AB041520	Nicotiana tabacum	AAB91471.1	AF035456	Spinacia oleracea
CAA88331.1	Z48431	Avena fatua	AAA18570.1	M99565	Spinacia oleracea
CAB66338.1	AJ279697	Betula pendula	CAB72128.1	AJ249329	Cucumis sativus
AAC49528.1	U56834	Petroselinum crispum	AAA34139.1	L08830	Lycopersicon esculentum
AAG35659.1	AF204926	Petroselinum crispum	CAA67867.1	X99515	Pisum sativum
AAF61864.1	AF193771	Nicotiana tabacum	CAA30018.1	X06932	Petunia x hybrida
AAF61863.1	AF193770	Nicotiana tabacum			

AAB99745.1	AF005993	Triticum aestivum
AAB88134.1	AF034618	Spinacia oleracea
CAA44620.1	X62799	Glycine max
CAA37971.1	X54030	Lycopersicon esculentum
AAB88009.1	AF035414	Brassica napus
CAB72130.1	AJ249331	Cucumis sativus
AAF34134.1	AF161180	Malus x domestica
CAB72129.1	AJ249330	Cucumis sativus
CAA47948.1	X67711	Oryza sativa
AAB88133.1	AF034617	Spinacia oleracea
AAB88132.1	AF034616	Spinacia oleracea
AAB97316.1	AF033852	Spinacia oleracea
CAA43711.1	X61491	Spinacia oleracea

What is claimed is:

1. A method of identifying a stress condition to which a plant cell has been exposed, the method comprising:

5 a) contacting nucleic acid molecules representative of expressed polynucleotides in the plant cell with an array of probes representative of the plant cell genome; and

b) detecting a profile of expressed polynucleotides in the plant cell characteristic of a stress response, thereby identifying the stress condition to which the plant cell was exposed.

10

2. The method of claim 1, wherein the stress condition is an abiotic stress condition.

3. The method of claim 2, wherein the abiotic stress is a cold stress condition,  
15 an osmotic stress condition, a saline stress condition, or a combination thereof.

4. The method of claim 1, wherein the profile is characteristic of exposure to a single stress condition.

20 5. The method of claim 1, wherein the profile is characteristic of a cold stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1-155, 157-229, 230-232, 234-557, 559-572, 574-605, 607-634, 636-634, 636-786, 788-812, and 814-1261.

25 6. The method of claim 1, wherein the profile is characteristic of a cold stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1-1261.

30 7. The method of claim 1, wherein the profile is characteristic of an osmotic stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:2428-2585.

8. The method of claim 1, wherein the profile is characteristic of a saline stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:2227-2427.

5           9. The method of claim 2, wherein the profile is characteristic of exposure to at least two abiotic stress conditions.

10           10. The method of claim 9, wherein the abiotic stress conditions are cold and osmotic stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1699-1725, 1727-1865, 1867-1917, 1919-1927, and 1929-1969.

15           11. The method of claim 9, wherein the abiotic stress conditions are cold and osmotic stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1699-1969.

20           12. The method of claim 9, wherein the abiotic stress conditions are cold and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1970-2226.

            13. The method of claim 9, wherein the abiotic stress conditions are osmotic and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:2586-2703.

25           14. The method of claim 9, wherein the abiotic stress conditions are cold, osmotic and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, and 1634-1698.

30           15. The method of claim 9, wherein the abiotic stress conditions are cold, osmotic and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1262-1698.

16. The method of claim 1, wherein the nucleic acid molecules representative of expressed polynucleotides in the plant cell are RNA molecules or cDNA molecules.

5

17. The method of claim 1, wherein the array of probes representative of the plant cell genome is immobilized on a microchip.

18. A method for determining whether a test plant has been exposed to an abiotic stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a plant stress-regulated gene, provided said gene does not comprise a nucleotide sequence of a polynucleotide as set forth in any of SEQ ID NOS:156, 229, 233, 558, 573, 606, 635, 787, 813, 1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918 or 1928, or a nucleotide sequence complementary thereto,

whereby  
detecting selective hybridization of at least one nucleic acid probe, or  
detecting a change in a level of selective hybridization as compared to  
a level of selective hybridization obtained using nucleic acid molecules  
representative of expressed polynucleotides in cells of a plant known not have  
been exposed to an abiotic stress,

indicates that the test plant has been exposed to an abiotic stress, and  
whereby an absence of selective hybridization of at least one nucleic acid  
probe indicates that the test plant has not been exposed to an abiotic stress.



19. The method of claim 18, wherein the abiotic stress is cold stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261 or a nucleotide sequence complementary thereto.

20. The method of claim 18, wherein the abiotic stress is saline stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427 or a nucleotide sequence complementary thereto.

21. The method of claim 18, wherein the abiotic stress is osmotic stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in two or more of SEQ ID NOS:2428-2585 or a nucleotide sequence complementary thereto.

22. A method for determining whether a test plant has been exposed to a cold stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261, or a nucleotide sequence complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a cold stress,

indicates that the test plant has been exposed to a cold stress, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a cold stress.

23. A method for determining whether a test plant has been exposed to a saline stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427, or a nucleotide sequence complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a saline stress,

indicates that the test plant has been exposed to a saline stress, and whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a saline stress.

24. A method for determining whether a test plant has been exposed to an osmotic stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in two or more of SEQ ID NOS:2428-2585, or a nucleotide sequence complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or  
detecting a change in a level of selective hybridization as compared to  
a level of selective hybridization obtained using nucleic acid molecules

5 representative of expressed polynucleotides in cells of a plant known not have  
been exposed to an osmotic stress,

indicates that the test plant has been exposed to an osmotic stress, and  
whereby an absence of selective hybridization of at least one nucleic acid  
probe indicates that the test plant has not been exposed to an osmotic stress.

10

25. A method for determining whether a test plant has been exposed to a  
combination of abiotic stress conditions, the method comprising contacting nucleic  
acid molecules representative of expressed polynucleotides in cells of the test plant  
with at least one nucleic acid probe under conditions suitable for selective

15 hybridization to a complementary nucleotide sequence,

whereby

detecting selective hybridization of at least one nucleic acid probe, or  
detecting a change in a level of selective hybridization as compared to  
a level of selective hybridization obtained using nucleic acid molecules  
20 representative of expressed polynucleotides in cells of a plant known not have  
been exposed to a combination of stress conditions,

indicates that the test plant has been exposed to a combination of  
abiotic stress conditions, and

whereby an absence of selective hybridization of at least one nucleic acid  
25 probe indicates that the test plant has not been exposed to a combination of abiotic  
stress conditions.

26. The method of claim 25, wherein the combination of abiotic stress  
conditions is a combination of a cold stress and an osmotic stress, and wherein the  
30 probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of  
SEQ ID NOS:1699-1969, or a nucleotide sequence complementary thereto.

27. The method of claim 25, wherein the combination of abiotic stress conditions is a combination of a cold stress and a saline stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1970-2226, or a nucleotide sequence complementary thereto.

5

28. The method of claim 25, wherein the combination of abiotic stress conditions is a combination of an osmotic stress and a saline stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2586-2703, or a nucleotide sequence complementary thereto.

10

29. The method of claim 25, wherein the combination of abiotic stress conditions is a combination of a cold stress, a saline stress and an osmotic stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1262-1698, or a nucleotide sequence complementary thereto.

15

30. A method for determining whether a test plant has been exposed to a cold stress and an osmotic stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

20

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1699-1969, or a nucleotide sequence complementary thereto,

25

whereby

detecting selective hybridization of at least one nucleic acid probe, or  
detecting a change in a level of selective hybridization as compared to  
a level of selective hybridization obtained using nucleic acid molecules  
representative of expressed polynucleotides in cells of a plant known not have  
been exposed to a cold stress and an osmotic stress,

30

indicates that the test plant has been exposed to a cold stress and an osmotic stress, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a cold stress and an osmotic stress.

5           31. A method for determining whether a test plant has been exposed to a cold stress and a saline stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

10           wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1970-2226, or a nucleotide sequence complementary thereto,

whereby

15           detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a cold stress and a saline stress,

20           indicates that the test plant has been exposed to a cold stress and a saline stress, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a cold stress and a saline stress.

25           32. A method for determining whether a test plant has been exposed to an osmotic stress and a saline stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

30           wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2586-2703, or a nucleotide sequence complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or  
detecting a change in a level of selective hybridization as compared to  
a level of selective hybridization obtained using nucleic acid molecules  
5 representative of expressed polynucleotides in cells of a plant known not have  
been exposed to an osmotic stress and a saline stress,

indicates that the test plant has been exposed to an osmotic stress and a  
saline stress, and

whereby an absence of selective hybridization of at least one nucleic acid  
10 probe indicates that the test plant has not been exposed to an osmotic stress and a  
saline stress.

33. A method for determining whether a test plant has been exposed to a cold  
stress, a saline stress and an osmotic stress, the method comprising contacting nucleic  
15 acid molecules representative of expressed polynucleotides in cells of the test plant  
with a plurality of nucleic acid probes under conditions suitable for selective  
hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence  
as set forth in any of SEQ ID NOS:1262-1698, or a nucleotide sequence  
20 complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or  
detecting a change in a level of selective hybridization as compared to  
a level of selective hybridization obtained using nucleic acid molecules  
25 representative of expressed polynucleotides in cells of a plant known not have  
been exposed to a cold stress, a saline stress, and an osmotic stress,

indicates that the test plant has been exposed to a cold stress, a saline  
stress and an osmotic stress, and

whereby an absence of selective hybridization of at least one nucleic acid  
30 probe indicates that the test plant has not been exposed to a cold stress, a saline stress  
and an osmotic stress.

34. A method for determining whether a test plant has been exposed to a cold stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1-155, 157-229, 230-232, 234-557, 559-572, 574-605, 607-634, 636-634, 636-786, 788-812, 5 and 814-1261 in cells of the test plant,

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

10 detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress,

indicates the test plant has been exposed to a cold stress, or

wherein

15 detecting a level of expression that is less than at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

20 detecting a level of expression that is at least two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress,

indicates the test plant has not been exposed to a cold stress.

35. A method for determining whether a test plant has been exposed to a saline stress, the method comprising detecting a level of expression of at least one 25 polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:2226-2427 in cells of the test plant,

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress, or

5            detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a saline stress,

indicates the test plant has been exposed to a saline stress, or

wherein

10           detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress, or

             detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a saline stress,

15           indicates the test plant has not been exposed to a saline stress.

36. A method for determining whether a test plant has been exposed to an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:2428-2585 in cells of the test plant,

wherein

             detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to an osmotic stress, or

25           detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to an osmotic stress,

indicates the test plant has been exposed to a osmotic stress, or

30



wherein

detecting a level of expression that is less than about two-fold different from level of expression of the at least one polynucleotide in cells of a plant not exposed to an osmotic stress, or

- 5            detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to an osmotic stress,  
             indicates the test plant has not been exposed to a osmotic stress.

- 10           37. A method for determining whether a test plant has been exposed to a cold stress and an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1699-1969 in cells of the test plant,

             wherein

- 15           detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress and an osmotic stress, or

- detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant  
20           known to be exposed to a cold stress and an osmotic stress,

             indicates the test plant has been exposed to a cold stress and an osmotic stress, or

             wherein

- detecting a level of expression that is less than about two-fold different from as a level of expression of the at least one polynucleotide in cells of a  
25           plant not exposed to a cold stress and an osmotic stress, or

- detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress and an osmotic stress,

- 30           indicates the test plant has not been exposed to a cold stress and an osmotic stress.

38. A method for determining whether a test plant has been exposed to a cold stress and a saline stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1970-2226 in cells of the test plant,

5           wherein

          detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress and a saline stress, or

          detecting a level of expression that is less than about two-fold different from as a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress and a saline stress,

          indicates the test plant has been exposed to a cold stress and a saline stress, or

          wherein

15           detecting a level of expression that is less than about two-fold different from as a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress and a saline stress, or

          detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress and a saline stress,

20           indicates the test plant has not been exposed to a cold stress and a saline stress.

39. A method for determining whether a test plant has been exposed to a saline stress and an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:2536-2703 in cells of the test plant,

          wherein

          detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress and an osmotic stress, or

30

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a saline stress and an osmotic stress,

indicates the test plant has been exposed to a saline stress and an osmotic stress, or  
wherein

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress and an osmotic stress, or

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to saline stress and an osmotic stress,

indicates the test plant has not been exposed to a saline stress and an osmotic stress.

40. A method for determining whether a test plant has been exposed to a cold stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth SEQ ID NOS:1-155, 157-229, 230-232, 234-557, 559-572, 574-605, 607-634, 636-634, 636-786, 788-812, and 814-1261 in cells of the test plant,

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress,

indicates the test plant has been exposed to a cold stress, or  
wherein

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress,

indicates the test plant has not been exposed to a cold stress.

5

41. A method for determining whether a test plant has been exposed to a cold stress, a saline stress and an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1262-1698 in cells of the test plant,

10

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, a saline stress and an osmotic stress, or

15

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress, a saline stress and an osmotic stress,

indicates the test plant has been exposed to a cold stress, a saline stress and an osmotic stress, or

wherein

20

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, a saline stress and an osmotic stress, or

25

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress, a saline stress and an osmotic stress,

indicates the test plant has not been exposed to a cold stress, a saline stress and an osmotic stress.

42. A method of producing a transgenic plant comprising plant cells that exhibit altered responsiveness to at least one stress condition, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into a plant cell genome, wherein the polynucleotide portion of the stress-regulated gene does not  
5 comprise a nucleotide sequence as set forth in any of SEQ ID NOS:156, 229, 233, 558, 573, 606, 635, 787, 813, 1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918 or 1928, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the plant cells to at least one stress condition, thereby producing a transgenic plant comprising plant cells that exhibit altered  
10 responsiveness to the stress condition.

43. The method of claim 42, wherein the stress condition is cold stress, and wherein the polynucleotide portion of a plant stress-regulated gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232,  
15 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261, 2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, and 3313-3955.

44. The method of claim 42, wherein the stress condition is saline stress, and  
20 wherein the polynucleotide portion of a plant stress-regulated gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427 and 4910-5107.

45. The method of claim 42, wherein the stress condition is osmotic stress, and wherein the polynucleotide portion of a plant stress-regulated gene comprises a  
25 nucleotide sequence as set forth in any of SEQ ID NOS:2428-2585 and 5108-5263.

46. A method of producing a transgenic plant comprising plant cells that exhibit altered responsiveness to a combination of at least two stress conditions, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into a plant cell genome, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the plant cells to a combination of at least two stress conditions, thereby producing a transgenic plant comprising plant cells that exhibit altered responsiveness to the stress conditions.

47. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress and osmotic stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1669-1969 and 4389-4654.

48. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress and osmotic stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1699-1725, 1727-1865, 1867-1917, 1919-1927, 1929-1969, 4389-4414, 4416-4552, 4554-4602, 4604-4612, and 4613-4654.

49. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1970-2226 and 4655-4909.

50. The method of claim 46, wherein the combination of at least two stress conditions is a combination of osmotic stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:2586-2703 and 5264-5379.

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51. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1262-1698 and 3956-4388.

5

52. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1262, 1264-1386, 1387-1390,  
10 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1698, 3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, and 4326-4388.

53. The method of any of claim 42 to 52, wherein the polynucleotide portion  
15 of the plant stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof.

54. The method of claim 53, wherein the stress-regulated polypeptide or functional peptide portion thereof increases the stress tolerance of the transgenic  
20 plant.

55. The method of claim 53, wherein the stress-regulated polypeptide or functional peptide portion thereof decreases the stress tolerance of the transgenic  
25 plant.

56. The method of claim 53, wherein the polynucleotide portion of the plant stress-regulated gene is operatively linked to a heterologous promoter.

57. The method of any of claim 42 to 52, wherein the polynucleotide portion  
30 of the plant stress-regulated gene comprises a stress-regulated regulatory element.

58. The method of claim 57, wherein, upon introducing the stress-regulated regulatory element into the plant cell, the regulatory element integrates into the plant cell genome in a site-specific manner.

5 59. The method of claim 58, wherein, upon integrating into the plant cell genome, the regulatory element is operatively linked to a heterologous nucleotide sequence, which can be expressed in response to a stress condition specific for the regulatory element.

10 60. The method of claim 57, wherein the plant stress-regulated regulatory element is a mutant regulatory element, which is not responsive to the stress condition, whereby upon integrating into the plant cell genome, the mutant regulatory element disrupts an endogenous stress-regulated regulatory element of a plant stress-regulated gene, thereby altering the responsiveness of the plant stress-regulated gene  
15 to the stress condition.

61. The method of any of claim 42 to 60, wherein the stress is an abiotic stress.

20 62. The method of claim 61, wherein the abiotic stress is selected from the group consisting of an abnormal level of cold, osmotic pressure, salinity, and a combination thereof.

63. The method of claim 57, wherein the stress-regulated regulatory element is operatively linked to a polynucleotide encoding a detectable marker.

25

64. A transgenic plant produced by the method of any of claims 42 to 63.

65. A plant cell from the transgenic plant of claim 64, wherein said plant cell exhibits altered responsiveness to the stress condition or stress conditions.

30

66. A seed produced by the transgenic plant of claim 64.



67. A cDNA or genomic DNA library prepared from the transgenic plant of claim 64, or from a plant cell from said transgenic plant, wherein said plant cell exhibits altered responsiveness to the stress condition.

5           68. A method for monitoring a population of plants for exposure to a stress condition or combination of stress conditions, the method comprising:

                  a) introducing into the population of a plants a sentinel plant, wherein said sentinel plant is a transgenic plant of claim 64, which comprises plant cells containing a stress-regulated regulatory element is operatively linked to a  
10           polynucleotide encoding a detectable marker; and

                  b) examining the sentinel plant for expression of the detectable marker, which is indicative of exposure of the population of plants to a stress condition or combination of stress conditions,  
                  thereby monitoring the population of plants for exposure to a stress condition  
15           or combination of stress conditions.

                  69. The method of claim 68, wherein said stress condition or combination of stress conditions is an abiotic stress condition or combination of abiotic stress conditions.  
20

                  70. The method of claim 68 or 69, wherein said stress condition or combination of stress conditions is cold stress, osmotic stress, saline stress, and a combination thereof.

25           71. The method of any of claims 68 to 70, wherein the stress condition is a cold stress condition, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2704-3955.

72. The method of any of claims 68 to 70, wherein the stress condition is a cold stress condition, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, and 3313-3955.

73. The method of any of claims 68 to 70, wherein the stress condition is a saline stress condition, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:4910-5107.

10

74. The method of any of claims 68 to 70, wherein the stress condition is an osmotic stress condition, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:5108-5263.

15

75. The method of any of claims 68 to 70, wherein the combination of stress conditions is cold stress and osmotic stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:4389-4654.

20

76. The method of any of claim 68 to 70, wherein the combination of stress conditions is a cold stress and an osmotic stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:4389-4414, 4416-4552, 4554-4602, 4604-4612, and 4613-4654.

25

77. The method of any of claims 68 to 70, wherein the combination of stress condition is a cold stress and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:4655-5909.

30

78. The method of any of claims 68 to 70, wherein the combination of stress conditions is an osmotic stress and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:5264-5379.

79. The method of any of claims 68 to 70, wherein the combination of stress conditions is a cold stress, an osmotic stress, and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:3956-4388.

5

80. The method of any of claims 68 to 70, wherein the combination of stress conditions is a cold stress, an osmotic stress, and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, and 4326-4388.

10

81. The method of any of claims 68 to 80, wherein the detectable marker is visibly detectable.

15

82. The method of any of claims 68 to 80, wherein said detectable marker comprises a luminescent detectable marker.

83. The method of any of claims 68 to 80, wherein said detectable marker comprises a fluorescent detectable marker.

20

84. The method of claim 83, wherein said fluorescent detectable marker comprises a green fluorescent protein, a yellow fluorescent protein, a cyan fluorescent protein, a red fluorescent protein, or an enhanced or modified form thereof.

25

85. A method of selecting a plant having an altered resistance to an abiotic stress condition or a combination of abiotic stress conditions, the method comprising:

a) contacting nucleic acid molecules representative of expressed polynucleotides in a plant cell of a plant to be examined for having an altered resistance to an abiotic stress with a nucleic acid probes that selectively hybridizes under stringent conditions to a plant stress-regulated gene comprising a nucleotide sequence as set forth in any of SEQ ID NO:1-5379;

30

b) detecting a level of selective hybridization of the nucleic acid probes to a nucleic acid molecule representative of an expressed polynucleotide in the plant cell, wherein the level of selective hybridization corresponds to the level of the expressed polynucleotide in the plant cell, which is indicative of resistance of the plant to an abiotic stress; and

c) selecting a plant having a level of expression of a polynucleotide indicative of altered resistance to an abiotic stress condition.

86. The method of claim 85, wherein the abiotic stress condition is cold stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-1261 and 2704-3955.

87. The method of claim 85, wherein the abiotic stress condition is cold stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261, 2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, and 3313-3955.

88. The method of claim 85, wherein the abiotic stress condition is saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427 and 4910-5107.

89. The method of claim 85, wherein the abiotic stress condition is osmotic stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2428-2585 and 5108-5263.

90. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress and osmotic stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1669-1969 and 4389-4654.

91. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress and osmotic stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1699-1725, 1727-1865, 1867-1917, 1919-1927,  
5 1929-1969, 4389-4414, 4416-4552, 4554-4602, 4604-4612, and 4613-4654.

92. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in  
10 any of SEQ ID NOS:1970-2226 and 4655-4909.

93. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of osmotic stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set  
15 forth in any of SEQ ID NOS:2586-2703 and 5264-5379.

94. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide  
20 sequence as set forth in any of SEQ ID NOS:1262-1698 and 3956-4388.

95. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide  
25 sequence as set forth in any of SEQ ID NOS:1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1698, 3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, and 4326-4388.

96. A method of modulating the responsiveness of a plant cell to a stress condition, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, wherein said gene comprises a nucleotide sequence of a polynucleotide as set forth in any of SEQ ID NOS:1-155, 157-228,  
5 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279,  
10 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379, thereby modulating the responsiveness of the plant cell to a stress condition.

97. The method of claim 96, wherein the responsiveness of the plant cell is increased upon exposure to the stress condition.  
15

98. The method of claim 97, wherein increased responsiveness of the plant cell increases the stress tolerance of the plant cell to the stress condition.

99. The method of claim 96, wherein the responsiveness of the plant cell is decreased upon exposure to the stress condition.  
20

100. The method of claim 99, wherein decreased responsiveness of the plant cell increases the stress tolerance of the plant cell to the stress condition.

25 101. The method of claim 96, wherein the polynucleotide portion of the plant stress-regulated gene integrates into the genome of the plant cell, thereby modulating the responsiveness of the plant cell to the stress condition.

30 102. The method of claim 96, wherein the polynucleotide portion of the plant stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof.

103. The method of claim 102, wherein the stress-regulated polypeptide or functional peptide portion thereof increases the responsiveness of the plant cell to the stress condition.

5        104. The method of claim 102, wherein the polynucleotide portion of the plant stress-regulated gene is operatively linked to a heterologous promoter.

10        105. The method of claim 102, wherein the polynucleotide portion of the plant stress-regulated gene contains a mutation, whereby upon integrating into the plant cell genome, the polynucleotide disrupts an endogenous plant stress-regulated gene, thereby modulating the responsiveness of said plant cell to the stress condition.

15        106. The method of claim 105, wherein the endogenous plant stress-regulated gene encodes a maladaptive stress-regulated polypeptide, and wherein said plant cell exhibits increased tolerance to the stress condition.

107. The method of claim 96, wherein the polynucleotide portion of the plant stress-regulated gene comprises a stress-regulated gene regulatory element.

20        108. The method of claim 107, wherein, the regulatory element is operatively linked to a heterologous nucleotide sequence, which, upon expression from the regulatory element in response to a stress condition, modulates the responsiveness of the plant cell to the stress condition.

25        109. The method of claim 108, wherein the heterologous nucleotide sequence encodes a stress-inducible transcription factor.

110. The method of claim 109, wherein the transcription factor is DREB1A.

111. The method of claim 108, wherein the heterologous nucleotide sequence encodes a polynucleotide specific for a plant stress-regulated gene, said polynucleotide selected from the group consisting of an antisense molecule, a ribozyme, and a triplexing agent, which, upon expression in the plant cell, reduces or inhibits expression of a stress-regulated polypeptide encoded by the gene, thereby modulating the responsiveness of the plant cell to a stress condition.

112. The method of claim 108, wherein the heterologous nucleotide sequence encodes a recombinant polypeptide comprising a zinc finger domain and a transcription effector domain.

113. The method of claim 112, wherein the transcription effector domain is a transcription activator domain.

114. The method of claim 96, wherein the stress condition is cold stress, osmotic stress, saline stress, or a combination thereof.

115. A method of expressing a heterologous nucleotide sequence in a plant cell, the method comprising introducing into the plant cell a plant stress-regulated regulatory element operatively linked to the heterologous nucleotide sequence, wherein said regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379, whereby, upon exposure of the plant cell to stress condition, the heterologous nucleotide sequence is expressed in the plant cell.

116. The method of claim 117, wherein the heterologous nucleotide sequence encodes a selectable marker.

117. The method of claim 117, wherein the heterologous nucleotide sequence encodes a polypeptide that improves the nutritional value of the plant cell.



118. The method of claim 117, wherein the heterologous nucleotide sequence encodes a polypeptide that improves the ornamental value of the plant cell.

5           119. A method of modulating the activity of a biological pathway in a plant cell involving a plant stress-regulated polypeptide, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, wherein the plant stress-regulated gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634,  
10   636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552,  
15   4554-4602, and 4604-5379, thereby modulating the activity of the biological pathway.

120. A plant cell obtained by any of claims 96 to 121.

121. A plant comprising the plant cell of claim 122.

20

122. A method of identifying a polynucleotide that modulates a stress response in a plant cell, the methods comprising:

- a) contacting an array of probes representative of a plant cell genome and nucleic acid molecules expressed in plant cell exposed to the stress;
- 25       b) detecting a nucleic acid molecule that is expressed at a level different from a level of expression in the absence of the stress;
- c) introducing the nucleic acid molecule of step b) into a plant cell; and
- d) detecting a modulated response of the plant cell of step c) to a  
30       stress, thereby identifying a polynucleotide that modulates a stress response in a plant cell.

123. The method of claim 124, wherein the stress is an abiotic stress.

124. The method of claim 125, wherein the abiotic stress is selected from the group consisting of an abnormal level of cold, osmotic pressure, and salinity.

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125. The method of claim 124, wherein expression of the nucleic acid molecule increases the tolerance of the plant cell to the stress.

126. The method of claim 124, wherein, in step b), the nucleic acid molecule is expressed at a level that is less than the level of expression in the absence of the stress.

127. A transgenic plant, which contains a transgene comprising a polynucleotide portion of plant stress-regulated gene, wherein the gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379.

128. The transgenic plant of claim 129, wherein the transgenic plant exhibits altered responsiveness to a stress condition as compared to a corresponding wild-type plant.

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129. The transgenic plant of claim 130, wherein the transgene disrupts an endogenous stress-regulated gene in the plant, thereby reducing or inhibiting expression of the gene in response to a stress condition.

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130. The transgenic plant of claim 130, wherein the plant exhibits increased tolerance to a stress condition.

131. The transgenic plant of claim 130, wherein the plant exhibits decreased tolerance to a stress condition.

5        132. The transgenic plant of any of claims 129 to 133, wherein the transgene comprises a coding sequence of a plant stress-regulated gene.

133. The transgenic plant of claim 134, wherein the coding sequence is operatively linked to a heterologous regulatory element.

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134. The transgenic plant of claim 135, wherein the regulatory element is a constitutively active regulatory element.

135. The transgenic plant of claim 135, wherein the regulatory element is an regulated regulatory element.

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136. The transgenic plant of claim 135, wherein the regulatory element is a tissue specific or phase specific regulatory element.

20        137. The transgenic plant of any of claims 129 to 131, wherein the transgene comprises a plant stress-regulated regulatory element operatively linked to a heterologous nucleotide sequence.

138. The transgenic plant of claim 139, wherein the transgenic plant expresses a polypeptide encoded by the heterologous nucleotide sequence.

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139. The transgenic plant of claim 140, wherein the polypeptide improves the nutritional value or ornamental value of the plant.

30        140. The transgenic plant of any of claims 129 to 141, wherein the plant comprises multiple transgenes.

141. The transgenic plant of claim 142, wherein the multiple transgenes comprise multiple copies of the same transgene or comprise two or more different transgenes.

5           142. A plant stress-regulated gene regulatory element, wherein the gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928,  
10           2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379.

          143. The plant stress-regulated gene regulatory element of claim 144,  
15           comprising a nucleotide sequence as set forth in any of SEQ ID NOS: 2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3513-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279,, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, 4604-4612, and 4614-5379, or a nucleotide sequence substantially similar thereto.

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          144. A method of identifying an agent that modulates the activity of the plant stress-regulated regulatory element of claim 144 or claim 145, the method comprising:  
          a) contacting the regulatory element with an agent suspected of having the ability to modulate the activity of the regulatory element; and  
25           b) detecting a change in the activity of the regulatory element, thereby identifying an agent that modulates the activity of the plant stress-regulated regulatory element.

          145. The method of claim 146, wherein the regulatory element can be  
30           operatively linked to a heterologous nucleotide sequence.

146. The method of claim 147, wherein the heterologous nucleotide sequence encodes a reporter molecule.

147. The method of any of claims 146 to 148, which is *in vitro* in a plant cell-free system, in a plant cell in culture, or in a plant *in situ*.

148. The method of claim 149, wherein the plant is a transgenic plant, into which the plant stress-regulated regulatory element has been introduced.

149. The method of any of claims 146 to 150, wherein the agent is a stress mimic.

150. A method of modulating a stress-regulated response in a plant cell, the method comprising expressing in the plant cell a recombinant polypeptide that interacts specifically with a plant stress-regulated regulatory element of claim 144 or claim 145, thereby modulating a stress-regulated response in the plant.

151. The method of claim 152, wherein the recombinant polypeptide comprises a zinc finger domain, which specifically interacts with the stress-regulated regulatory element, and a transcription effector domain, which effects expression of the regulatory element.

152. The method of claim 153, wherein the effector domain is a transcription activation domain.

153. The method of claim 153, wherein the effector domain is a transcription repressor domain.

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154. A method for identifying a polynucleotide involved in a stress response of a plant, the method comprising:

- 5 a) contacting nucleic acid molecules representative of expressed polynucleotides in plant cells of a plant exposed to a stress condition or combination of stress conditions with an array of probes representative of the plant cell genome; and
- 10 b) detecting a nucleic acid molecule that exhibits at least a two-fold change in the level of expression as compared to the level of the nucleic acid molecule in a corresponding plant cell of a plant that was not exposed to the stress condition, thereby identifying a polynucleotide involved in a stress response of the plant.

155. The method of claim 156, comprising identifying a plurality of polynucleotides involved in the stress response in the plant.

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156. The method of claim 156 or 157, further comprising isolating the polynucleotide or plurality of polynucleotides.

157. A computer readable medium having stored thereon computer executable instructions for performing a method comprising:

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- a) receiving data on expression in a cell of a plant of a nucleic acid molecule having at least 70% sequence identity to a nucleotide sequence comprising any of SEQ ID NO. 1-5379; and
- 25 b) comparing the data on expression of the nucleic acid molecule with data on expression of the nucleic acid in a cell of a plant that has not been exposed to an abiotic stress, of a plant that has been exposed to an abiotic stress condition or combination of abiotic stress conditions, or of a combination of such plants.

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158. The computer readable medium of claim 159, wherein the nucleic acid molecule comprises one of a plurality of nucleic acid molecules, and wherein the computer executable instructions are capable performing receiving and comparing of any or all of the plurality of nucleic acid molecules.

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159. A computer-readable medium having stored thereon a data structure comprising:

sequence data for at least one nucleic acid molecule having at least 70% nucleic acid sequence identity to a polynucleotide having a nucleotide sequence as set forth in any of SEQ ID NO. 1-5379 or a nucleotide sequence complementary thereto; and

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a module receiving the nucleic acid molecule sequence data, which compares the nucleic acid molecule sequence data to a least one other nucleic acid sequence.

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/26685

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/82 C12Q1/68 A01H5/00 G06F17/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12Q A01H G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, MEDLINE, CAB Data, SEQUENCE SEARCH

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
------------	--	-----------------------

X	<p>REYMOND P ET AL: "Differential gene expression in response to mechanical wounding and insect feeding in Arabidopsis." PLANT CELL, vol. 12, no. 5, May 2000 (2000-05), pages 707-719, XP002216347 ISSN: 1040-4651</p> <p>the whole document</p>	<p>1-4, 16-18, 42, 57-70, 81-84, 96-108, 111,114, 124-128, 156-158</p>
A	<p>WO 00 08187 A (VERBRUGGEN NATHALIE ;VLAAMS INTERUNIV INST BIOTECH (BE); LEE JEONG) 17 February 2000 (2000-02-17) the whole document</p>	

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principles or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*G\* document member of the same patent family

Date of the actual completion of the international search

10 October 2002

Date of mailing of the international search report

18. 12. 2002

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## INTERNATIONAL SEARCH REPORT

In ☐ International Application No

PCT/US 01/26685

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NUCCIO M L ET AL: "Metabolic engineering of plants for osmotic stress resistance." CURRENT OPINION IN PLANT BIOLOGY. UNITED STATES APR 1999, vol. 2, no. 2, April 1999 (1999-04), pages 128-134, XP002216348 ISSN: 1369-5266 the whole document ---	
A	RUAN Y ET AL: "TOWARDS ARABIDOPSIS GENOME ANALYSIS: MONITORING EXPRESSION PROFILES OF 1400 GENES USING CDNA MICROARRAYS" PLANT JOURNAL, BLACKWELL SCIENTIFIC PUBLICATIONS, OXFORD, GB, vol. 15, no. 6, September 1998 (1998-09), pages 821-833, XP000960486 ISSN: 0960-7412 the whole document ---	
A	SCHEMA M ET AL: "QUANTITATIVE MONITORING OF GENE EXPRESSION PATTERNS WITH A COMPLEMENTARY DNAMICROARRAY" SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,, US, vol. 270, no. 5235, 20 October 1995 (1995-10-20), pages 467-470, XP000644675 ISSN: 0036-8075 the whole document ---	
P,X	SEKI M ET AL: "Monitoring the expression pattern of 1300 Arabidopsis genes under drought and cold stresses by using a full-length cDNA microarray." PLANT CELL, vol. 13, no. 1, January 2001 (2001-01), pages 61-72, XP002216349 ISSN: 1040-4651 the whole document ---	1-4, 16-18, 42, 57-70, 81-84, 124-128, 156-158
P,X	SCHENK P M ET AL: "Coordinated plant defense responses in Arabidopsis revealed by microarray analysis." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 97, no. 21, 10 October 2000 (2000-10-10), pages 11655-11660, XP002216350 October 10, 2000 ISSN: 0027-8424 the whole document ---	1,2,4, 16-18, 42, 57-60, 63-68, 81-84, 124,127, 128, 156-158
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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/26685

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>EP 1 033 405 A (CERES INC) 6 September 2000 (2000-09-06)</p> <p>see SEQ ID NO: 38097 page 1 -page 26; claims 1-34 page 89 -page 90 page 318 page 322</p> <p>-----</p>	<p>42,43, 57-70, 81-87, 96-108, 111,114, 121-123, 129-144, 146-151, 159-161</p>

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 01/26685

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 152-155  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
claims 1-6, 16-19, 22, 34, 40, 42, 43, 57-70, 81-87, 96-114, 121-144, 146-151, 156-161 all partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims: 1-6,16-19,22,34,40,42,43,  
57-70, 81-87,96-114,121-144,146-151,  
156-161 all partially

A method of identifying a stress condition to which a plant cell has been exposed comprising a polynucleotide with SEQ ID NO: 1. A method for determining whether a test plant has been exposed to an abiotic stress, a method of producing a transgenic plant, a transgenic plant, a plant, a plant cell, a seed, a cDNA or genomic library, a method for monitoring a population of plants, a method of selecting a plant having an altered resistance to an abiotic stress condition, a method of modulating the responsiveness of a plant cell to a stress condition, a method of modulating the activity of a biological pathway in a plant cell, a method of identifying a polynucleotide that modulates a stress response in a plant cell, a plant stress-regulated gene regulatory element, a method of identifying an agent that modulates the activity of a plant stress-regulated element, a method for identifying a polynucleotide involved in a stress response of a plant, a computer readable medium having stored thereon computer executable instructions or a data structure comprising said polynucleotide.

Invention 2-5379: claims 1-151,  
156-161 insofar as applicable; all partially

same as invention 2 but comprising a polynucleotide sequence in the order as given in the claims (invention 2 is limited to SEQ ID NO: 2 and invention 5379 is limited to SEQ ID NO: 5379).

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box 1.2

Claims Nos.: 152-155

Present claims 152-155 relate a product/compound defined by reference to a desirable characteristic or property, namely a polypeptide that interacts with a plant stress-regulated regulatory element.

The claims cover all products/compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products/compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product/compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, no search has been carried out.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/26685

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 0008187	A	17-02-2000	AU	5419799 A		28-02-2000
			CA	2336227 A1		17-02-2000
			WO	0008187 A2		17-02-2000
			EP	1100940 A2		23-05-2001
			JP	2002524052 T		06-08-2002
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EP 1033405	A	06-09-2000	CA	2300692 A1		25-08-2000
			EP	1033405 A2		06-09-2000
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